

LEATH & ROSS'S HOMŒOPATHIC PHARMACIES,

9 VERE STREET, W.,

And 5 ST. PAUL'S CHURCHYARD, E.C.,
LONDON.

Those desirous of

ESTABLISHED 1835.

To apply at

BECOMING AGENTS

9 VERE STREET,

are requested

Our Agents'
GLASS-TOP SHOW CASE,
As it appears open.

Wholesale Department.



TRADE PRICE £4 4s.

CONTENTS REALISE £7 1s. 6d.

THE NEW FAMILY CHEST

Contains 28 Bottles of the most useful Homœopathic Medicines, a Guide, giving the treatment of all common complaints, the uses of the Medicines, proper doses, &c. In the lid are the two externals most in use, viz., Arnica and Calendula. It can be fitted to hold either Pilules or Tinctures.

Price 25/-; trade price, 16/8.

LEATH & ROSS'S WHOLESALE PRICE LIST OF MEDICINES, ETC., PUT UP READY FOR SALE.

GLOBULES—Medicated any strength up to the 30th potency.

Sixpenny Tubes, 3/- per dozen.

Ninepenny " 4/6 "

Shilling " 6/- "

TINCTURES—Any strength up to the 30th potency.

Sixpenny Bottles, 3/- per dozen.

Ninepenny " 4/6 "

Shilling " 6/- "

PILULES—Medicated to any strength up to the 30th potency

Sixpenny Bottles, 3/- per dozen.

Ninepenny " 4/6 "

Shilling " 6/- "

TRITURATIONS—

Sixpenny Bottles, 4/- per dozen.

Ninepenny " 4/6 "

Shilling " 6/- "

EXPORT ORDERS ARE DESPATCHED WITH THE GREATEST PROMPTITUDE.

Special quotations for large quantities.

LEATH & ROSS'S PROPRIETARY ARTICLES.

ERRERINE, 1/1, 2/9, 4/6 ... 9/6, 22/, 36/.

MILBLAIN LINIMENT, 1/1, 2/9 ... 9/6, 22/.

HOSPHO-MUR. QUININE, or PICK-ME-UP

TINCTURE, 1/1, 2/9 ... 9/6, 22/.

UROSINE, 1/1, 1/6, 2/6 ... 8/, 12/, 20/.

ANTISEPTIC TOOTH TINCTURE, 1/1, 1/6, 2/6 ... 8/, 12/, 20/.

NEURALINE, 1/1, 2/9, 4/6 ... 9/6, 22/, 36/.

GLYKALINE, 1/1, 2/9, 4/6 ... 9/6, 22/, 36/.

ODONTALGIC ESSENCE, 1/1, 2/9, 4/6 ... 9/6, 22/, 36/.

OZONIZED OIL, 1/1, 1/6, 2/6 ... 8/, 12/, 20/.

HAIR RESTORER, 1/6, 2/6, 4/6 ... 12/, 20/, 36/.

Agents' Counter Cases, £2/2/0, £3/3/0, £4/4/0, £6/6/0, and £10/10/0.

LEATH & ROSS, LONDON.

**Reduced in Price to 1s. 2d. per lb. in 5 lb. Tins
and 1s. 3d. per lb. in 1 lb. Tins. Packages free.**

PETROLEUM **VASELINE** JELLY.

CAUTION.—Distillates of Petroleum can no more be compared with Vaseline than butter can be compared with cheese nor can they in any way fill the place of Vaseline. When one requires butter he does not buy cheese because the latter is cheaper.

DISTILLATES OF PETROLEUM are the result of the process of destructive distillation and chemical treatment. The solid products have an acrid taste, paraffin odour, are crystalline in their structure, and after being melted become caked upon cooling. Ointments made with them are not uniform, but lumpy, and they must necessarily irritate the skin. All distillates of Petroleum are poisonous when introduced into the system, as evidenced by the reports of accidents which appear in the papers daily.

VASELINE is not a distillate; but it is a pure jelly of Petroleum itself, highly concentrated and purified by innocuous filtration. It has neither odour nor taste, can be heated indefinitely and regains its primitive properties on cooling. It does not crystallize but is a homogeneous jelly, and ointments prepared with it are uniform and present a softness and beauty not attained with other bases. It is perfectly harmless, and can be administered internally in quantities for pulmonary complaints, &c. It is the ONLY substance known which under no conditions will irritate the skin.

The following standard Ointments compounded with Vaseline as a base will be found superior to others. They can be kept without deterioration until used up

Unguentum Hydrargyri ($\frac{1}{2}$ MERCURY—MERCURIAL OINTMENT).	}	In
Unguentum Zinc Oxidi.		1 lb
Unguentum Hydrargyri Nitratis (CITRINE OINTMENT).		Jars
Ceratum Resinae.		3s.
Ceratum Plumbi Subacetatis , (GOULARD'S CERATE).		per
Pomat Camphoratum. PR.		Jar
Cerat Simplex (WHITE)		

Price List, with full particulars of Medicinal, Pharmaceutical, and Toilet Preparations of Vaseline, free by post

MANUFACTURED ONLY BY THE
CHESEBROUGH MANUFACTURING CO.
41 HOLBORN, VIA LONDON, E.C.

Pronounced by Dr. ATTFIELD, Professor
of Practical Chemistry to the Pharmaceutical
Society of Great Britain, to be "of unusual
purity," and FAVORABLE OF ALL GOOD QUALITIES.
(Certificate attached to each Invoice.)

The
Best
and
Cheapest

NET CASH PRICES—Carriage paid.
24-gallon Tins—
One Barrel, carriage paid, 6/- per gallon.
Two Barrels, carriage paid, 5/9 per gallon.
Five Barrels, carriage paid, 5/6 per gallon.

Superior Steam-Refined

NORWEGIAN COD LIVER OIL.

AWSON & SWAN, Importers, 11 & 15 Mosley St., NEWCASTLE-ON-TYNE.

NOTA BENE.—ABOVE-MENTIONED CORRECTED QUOTATIONS APPLY ONLY FOR
ORDERS RECEIVED DURING PRESENT MONTH (JUNE).

HENRY YOUNG

(ESTABLISHED A.D. 1846),

Inventor of the ORIGINAL ARNICATED White Felt

CORN & BUNION PLASTERS.

PRICES—

Arnicated White Felt Corn Plasters.

12 in box (round 6d. boxes) ...	2/4 per doz. boxes.
12 in box (original 1s. fancy boxes) 3/4	„
1 gross in box ...	1/10 per gross.
1 gross in glass top box ...	3/0 „

Arnicated White Felt Bunion Plasters.

Small Thin, 6 in box (round 6d. boxes) ...	2/4 per doz. boxes.
Thick, 6 in box (original 1s. fancy boxes) 3/8	„
Large Thin, 1/2-gross in box ...	4/6 per gross.
Thick, 1/2-gross in glass top box ...	6/0 „

SUBJECT TO THE DISCOUNTS ALLOWED BY WHOLESALE HOUSES.

B.—Please notice these are much LOWER priced than formerly, and see
that YOUNG'S Goods are supplied, as there are many worthless imitations.

Manufactory, 72 Clerkenwell Road, London, E.C.

BY HER
MAJESTY'S



ROYAL
LETTERS PATENT.

ARNOLD & SONS' "SIMPLEX" ENEMA.

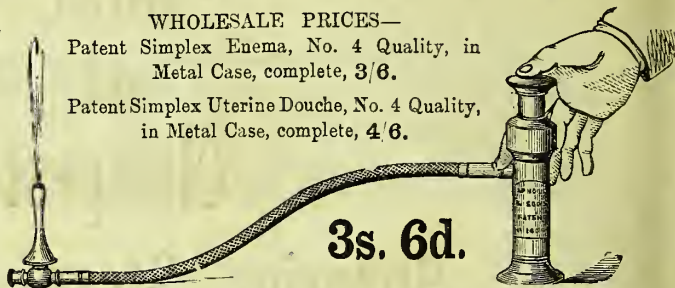
NOTICE.—ARNOLD & SONS, at the suggestion of several leading members of the Profession, have introduced a cheap form of their Patent "Simplex" Enema, which will be found to supersede all other Enemas. It is acknowledged to be the most simple, durable, and effective instrument yet introduced.

Vide *The Lancet*, August 17, 1872; *British Medical Journal*, June 22, 1872; *Medical Times and Gazette*, June 22, 1872; *Medical Press and Circular*, June 26, 1872.

WHOLESALE PRICES—

Patent Simplex Enema, No. 4 Quality, in Metal Case, complete, 3/6.

Patent Simplex Uterine Douche, No. 4 Quality, in Metal Case, complete, 4/6.



3s. 6d.

THE VAPORIFER.

5s. & 7s. 6d.



ARNOLD & SONS' PATENT VAPORIFER BRONCHITIS KETTLE, INHALER, AND VAPOUR BATH COMBINED,

As suggested by W. L. SHEPARD, M.R.C.S., etc.

Vide *The Lancet*, Jan. 11, 1879; *British Medical Journal*, Feb. 8, 1879; *Medical Times and Gazette*, April 12, 1879.

Extract of Letter received from J. F. FINCHETTE, Esq., Portland House, Brunswick Square, W., dated Feb. 13, 1879.

"The 'Vaporifer,' all complete, came to hand safely on Saturday last, with thanks, and I consider it a marvel of cheapness and utility, and wish DR. SHEPARD, all success with his invention, which, I feel assured, only needs to be known to be appreciated. I have tried it for each of the purposes for which it is intended, and found it answer completely."

Trade Price, 42s. per doz. Retail Price, 5s. With Lamp, Saucepan, and Stand complete, 63s. per doz. Retail Price, 7s. 6d.

SOLE MANUFACTURERS
AND PATENTEES—

ARNOLD & SONS, Instrument Makers,
By Appointment to Her Majesty's Government, St. Bartholomew's Hospital, and the Principal Provincial and Colonial Hospitals, &c.

35 & 36 WEST SMITHFIELD, LONDON, E.C.

TRADE

MALTINE.

MARK.

(EXTRACT OF MALTED BARLEY, WHEAT, AND OATS.)

THE ORIGINAL AND ONLY PREPARATION COMPOSED OF THESE THREE CEREALS.

This Preparation contains from Five to Ten times the beneficial and nutritive elements found in any Alcoholic Extract of Malt.

As prescribed by the most distinguished and eminent members of the Medical Profession, and largely used for patients at the principal Hospitals in the United Kingdom in preference to all other Extracts of Malt.

CAUTION.—Examine each Bottle, and see that the Capsule is marked "The Maltine Manufacturing Company, Limited"—without it, you have been imposed upon by a WORTHLESS IMITATION.

MALTINE.

"WHEAT and OATS are especially rich in muscular and fat-producing elements."—*Liebig*.
MALTINE will increase both weight and flesh in most persons of thin habit. MALTINE is particularly recommended for delicate females and for weak and debilitated Children and Infants. For Deficient Lactation, and for Mothers whilst Nursing, MALTINE is especially recommended. MALTINE is the most important combination in use for Constipation. MALTINE is entirely free from all products of Fermentation, such as Alcohol and Carbonic Acid Gas. MALTINE is very palatable and pleasant, and will be readily taken by the youngest child.

COMPOUNDS.

FOR CONSUMPTION AND WASTING DISEASES.

MALTINE with Peptones—

Invaluable where natural digestion is in abeyance, in Mal-nutrition, Alimentation in Fevers, Phthisis, Pulmonary Affections, and all wasting diseases. Each fluid ounce contains the nutritive properties of 1½ ounces of digested beef.

MALTINE with Cod Liver Oil—

The most perfect emulsion and most agreeable and effective mode of administering this nutritious and valuable Oil yet discovered.

MALTINE with Cod Liver Oil and Phosphates—

In Phthisis, where the Profession desire to prescribe Cod Liver Oil, this will be found most efficient.

MALTINE with Hypophosphites—

This Preparation is specially indicated in Consumption, Rickets, and Deficient Ossification.

MALTINE with Phosphates—

The Phosphates are found in all vegetable matter, and in the blood, tissues, and excretions of man; by their use most important results may be obtained.

MALTO-YERBINE—

A most palatable and efficacious remedy and substitute for Cod Liver Oil in the treatment of Consumption and Wasting Diseases; also the most perfect remedy yet produced in Chronic Pulmonary Affections, Coughs and Colds.

MALTINE with Alteratives.—

In this Preparation MALTINE is combined with the most valuable alteratives known, such as Iodides, Bromides, and Chlorides, and has been found highly efficacious in obstinate cases of Syphilis, Scrofula, and all depraved conditions of the blood.

MALTINE and COMPOUNDS, in Bottles containing 8 and 16 fluid ounces, equal in weight to 12 and 24 ounces, 2/6 and 4/6. The Compounds 3/6 and 6/6; and in Winchester Quarts, 120 ounces weight, 20/- and 29/-.

"Maltine" exhibits in an eminent degree the starch-dissolving power of diastase; in fact, a teaspoonful is capable of converting instantaneously a surprising amount of stiff starch paste into a thin limpid liquid.

"The first example of a combination of the nutritious principles of these three cereals that we have seen. Clinical experience enables us to recommend 'Maltine' as a Nutritive and Digestive Agent, likely to prove an important remedy in pulmonary affections, debility, indigestion, imperfect nutrition, and deficient lactation."

British Medical Journal.

"This Preparation possesses many qualities of great importance; it is more portable than the liquid known as 'Malt Extract,' combining, as 'Maltine' does, the nutritious principles of three cereals."—*Medical Times and Gazette*.

"We have prescribed 'Maltine' for several patients who were suffering from general debility, indigestion, &c., with marked benefit, and it appeared to sit easily on the stomachs of patients who were unable to take Stout or any other kind of Malt Liquor."—*Medical Press and Circular*.

FOR INDIGESTION, GENERAL DEBILITY, &c.

MALTINE with Pepsine and Pancreatine—

One of the most effective combinations in Dyspepsia, Cholera Infantum, and all diseases resulting from imperfect nutrition.

MALTINE WINE with Pepsine and Pancreatine—

We can recommend this Preparation in all cases of Dyspepsia and imperfect nutrition, when the system needs invigorating and replenishing. It will be found a perfect remedy in vomiting in pregnancy, Cholera Infantum, and wasting diseases of Children, and in Constipation and Chronic Diarrhoea, resulting from mal-nutrition, and will agree with the most irritable stomachs.

MALTINE WINE—

This Preparation is lighter and more acceptable to some stomachs, and is recommended only in such cases.

MALTINE with Beef and Iron—

One of the most valuable combinations in cases of General Debility, when there is a deficient nutrition and a deficiency of Iron in the system.

MALTINE with Phos. Iron, Quinia, and Strichnia—

A powerful nutritive, general and nervous tonic.

MALTINE with Phosphates, Iron, and Quinia—

A powerful, general, and nutritive tonic.

MALTINE Ferrated—

This combination is specially indicated in Anæmia and Chlorosis, and in all cases of defective nutrition where Iron is deficient in the system.

Recommended only in such cases.

3/6 and 6/6; and in Winchester Quarts, 120 ounces weight, 20/- and 29/-.

THE MALTINE MANUFACTURING COMPANY (LIMITED)

GREAT RUSSELL STREET BUILDINGS (Corner of Gt. Russell and Charlotte Streets), LONDON.

PRIZE MEDALS AWARDED,
INTERNATIONAL EXHIBITION, 1862, & CENTENNIAL EXHIBITION, Philadelphia, 1876.



R. LOW, SON & HAYDON,

MANUFACTURERS OF CHOICE

TOILET SOAPS & EXTRACTS,

Call the special attention of the Trade to the quality of their Manufactures, and also state that they are prepared to offer the best possible value to Cash Purchasers.

Orders for Toilet Soaps of 1 Cwt. and over stamped with Buyer's Name free of cost.

CREASOTE SOAP, REGISTERED,

The New Disinfectant, in wrapped squares, $3/6$ per dozen or $36/$ per gross, subject to 10% at a month.

FLOWER EXTRACTS,

OF TRIPLE STRENGTH, viz., Ess Jasmin, Cassie, Fleur d'Oranges, Rose, Rezéda, Jonquille, Tuberose, Ylang-Ylang, &c., $9/6$ per lb., subject to 10 % at one month.

French, Rose and Orange Flower Waters, Virgin Otto de Rose, Oils Neroly, Petit Grain, Sandal Wood, Cloves, Cassia, Caraway, Geranium, Ess Bergamot, and Lemon,

And all Articles used for the manufacture of Perfumery, of guaranteed purity, at Special Quotations.

WAREHOUSE: 330 STRAND, LONDON.

ALFRED BASTIN,

WHOLESALE AND EXPORT DRUGGIST,

29 FENNEL STREET

(CLOSE TO THE CATHEDRAL),

MANCHESTER.

Shipping Orders carefully and economically executed. Send for Price List.

By Her Majesty's
Royal Letters Patent
No. 4168.

W. & H. JACKSON'S
PATENT CHEQUERED PUMICE

TRADE MARK,
"FLOATING."

"FLOATING" HAND TABLET.
FOR USE IN WASHING, &c.
4D. & 6D. RETAIL.

These find a rapid sale wherever introduced, as the following will testify:—

DEAR SIRS,—Referring to the New Pumice Hand Tablets, I find they sell exceedingly well, having sold *Fourteen Dozen Sixpenny Tablets* in a very short time. They appear to give thorough satisfaction. I shall require another supply in a day or two.

Messrs. W. & H. JACKSON.

Yours truly, R. J. ELLIOT, Ph. D. (late ELLISON & Co.)

May be obtained from Messrs. S. Maw, Son & Thompson; Lynch & Co.; Gilbertson & Sons; and all leading Sundry Houses.

In ordering be sure to order Chequered Pumice FLOATING Hand Tablets, as there is an imitation in the Market which will not float.

Sole Proprietors—**W. & H. JACKSON, 4 Cleveland Square, LIVERPOOL.**
ALL RIGHTS RESERVED.

H. W. KEMP,
WHOLESALE DEALER IN
FOREIGN WAX AND HONEY.

Send for sample of **WAX** at 1s. 5d. per lb., extremely good colour and smell.

COMMON WHOLESALE WAX (tons being sold), good colour, price 1s. 1d. per lb.

Both of the above subject to discount of 1d. per lb. for 1 cwt. parcels. Samples free.

SOFT SOAP, Fine Quality, 9s. 3d. per firkin of 64 lbs.; 5s. 4d. per half-firkin. This for not less than 6 firkins or 12 half-firkins.

BEST MEAT DOG BISCUITS, equal to any made, 10 cwt. lots, 12s. 6d. per cwt.; 5 cwt. lots, 12s. 9d. per cwt. Sample free.

H. W. KEMP, HIGH STREET, HORNCastle.

METHYLATED SPIRIT.
LICENSED MAKERS,

A. & J. WARREN,
Wholesale Druggists, Bristol.

Who now offer **COD LIVER OIL**, extra fine, in 25-gallon tin-lined casks, and draw special attention to their importation of finest **OLIVE OIL** in quarter-casks, hogsheads, and pipes.

TO DENTISTS AND CHEMISTS.—Every description of Artificial Teeth made at greatly reduced charges. Best work and best materials only.

An Upper or Lower Set, inclusive of Teeth Rubber, &c., £1 1s.
Ditto, ditto, on Platina, £2 2s.

Send for Price List.

Twenty years' experience in mechanical work.

LESSONS GIVEN IN MECHANICAL DENTISTRY
F. BUCK, 6 Hanover Place, Upper Baker Street, London, N.W.

BOWLES & CROSS,
MEDICAL & GENERAL PRINTERS,
Engravers, Lithographers,
ETC., ETC.

For DISPENSING, RETAIL, and PROPRIETARY LABELS,

For MEMORANDUMS, COUNTER BILLS & PRESCRIPTION ENVELOPES,

For BILL-HEADS, WRAPPERS of all kinds, & POWDER ENVELOPES,

Send to 3, LAMBETH HILL,
QUEEN VICTORIA STREET, E.C.

TO PATENT MEDICINE PROPRIETORS.

HANDBILLS

PRINTED AT THE CHEAPEST POSSIBLE RATE BY

EDGAR BARKER,
Excelsior Steam Works, Cleckheaton,
YORKSHIRE.

Handbills, Pamphlets, Almanacks,
Posters. Estimates by Return.

OZOKERINE

(REGISTERED).

New Preparation PERFECT as a BASIS for OINTMENTS, of admirable consistency, bland, emollient, antiseptic, and healing.

CANNOT BECOME RANCID.

"Moderate in price, and deserving a careful trial."—BRITISH MEDICAL JOURNAL.

"A valuable and useful substance, and will in all probability be very largely used."—MEDICAL TIMES AND GAZETTE.

"Will take a high position among our other pharmaceutical preparations."—MEDICAL PRESS AND CIRCULAR.

"Likely to prove useful as a dressing for wounds and excoriations."—PRACTITIONER.

OZOKERINE is a clear, pale yellow, very slightly fluorescent body, composed of hydrocarbons akin to Paraffine in their chemical characters. It has been used with remarkable success as a simple dressing for wounds, its mild and healing properties rendering it peculiarly grateful to the patient.

OZOKERINE is unsurpassed as an unguent basis; unchangeable in itself, except by the action of the most powerful chemical agents, it preserves other bodies with which it may be incorporated from all tendencies to decomposition. The superiority of Ozokerine to lard in this respect cannot be over-estimated.

Each Tin is stamped on the lid with the words "FIELD'S OZOKERINE, REGISTERED," without which none is genuine.

Made only by J. C. & J. FIELD.

The Price Reduced to 1/6 per lb. in 1 lb. Tins, and 1/4 per lb. in 7 lb. Tins. Subject to Discount.

To be obtained of all Wholesale Houses in the United Kingdom and the Colonies.

PULVIS JACOBI VERUS

(THE TRUE "JAMES" POWDER),
PREPARED BY

W. Hooper & Co.

Has an acknowledged reputation as an Antimonial, and its value and efficacy is verified by a continued and increasing sale in the Indian Empire. Sold in 1 and 4-oz. Bottles (Troy), at 2/9 and 10/6; also in Packets for transmission by Post.

W. HOOPER & CO., 24 Russell Street, Covent Garden.

HAMBRO SPECKLED.



TRADE MARK
REGISTERED.

All Orders by Post receive immediate attention.

LEECHES!

Warranted Healthy, Wholesale and for Exportation, Direct from Marshes.

FITCH & NOTTINGHAM,
Leech Breeders,

MARSEILLES, & 55 PENTONVILLE
ROAD, LONDON, N.

NON-FREEZABLE COD LIVER OIL,

perfectly clear and bright at 38 Fahr., 4 degrees below freezing point of water.

We have much pleasure in being able to offer to our friends a specially prepared Cod Liver Oil, which we guarantee to remain quite bright at 28 Fahr.; in point of fact it does not begin to show any symptoms of concretion until below this temperature.

Cod Liver Oil may be rendered non-freezable by various processes after its importation to this country, but at the risk of reducing its medicinal value. We would therefore particularly call your attention to the fact that this Oil is in its natural condition, as



specially manufactured for us in the north of Norway, arrangements for which were made last summer by one of our Firm, who visited the oil-producing districts for this purpose.

This special make of oil will be sent out with the registered label, JÆGT BRAND, the illustration representing a very ancient type of vessel still in use in the fishing grounds on the Northern Coast of Norway.

We have recently submitted a sample of the Oil to a distinguished analyst, whose report confirms the statements as to quality in this notice.

The fishing this year having turned out better than was anticipated, we are glad to be able to offer our Jægt Brand Oil at 7s. gallon, or 6s. 6d. for not less than three dozen Winchester quarts, for immediate delivery.

NEW COD LIVER OIL (JÆGT BRAND), 1880.

We would call attention to the fact of this Oil being much cheaper than others extensively advertised; it is equal in quality to any imported into this country; and our large sale enables us to offer it for cash, less 5 per cent. discount, at a price which makes it the best value in the market.

COBDEN'S QUININE AND PHOSPHORUS PILLS.

THE NEW TONIC, 2/9 and 4/6.

PHOSPHORUS is the life-giving element in the blood, and the thought-giving power of the brain. In conjunction with Quinine it is one of the most powerful curative agents known. All nervous diseases mean a want of Phosphorus in the brain and nerve centres, and to cure them is to reintroduce the deficient property.

COBDEN'S Pills (Quinine & Phosphorus) have been invented to accomplish this end, and there are now many thousands who can testify to the success of this mode of treatment. If your brain is overworked, your nerves unstrung, if you suffer from nervous or general debility, or feel a want of vigour and vitality, try a course of

COBDEN'S Pills (Quinine & Phosphorus). Mr. G. OSBORNE, *Coming Events Office*, Fleet Street, London, writes, October 31, 1877:—"Having taken 'Cobden's Pills' for a short time, I find myself greatly improved in health. They have had a wonderful effect on my nerves."

COBDEN'S Pills (Quinine & Phosphorus). Produce appetite and a healthy digestion. Renew the strength. Renovate the failing power. Remove sensations of fatigue. Produce sensations of exhilaration. Cause no after depression. Increase the capacity for mental and physical exertion. Produce cheerfulness. Give a coolness and dexterity to the mind. Confer freshness, originality, and energy on the mental processes. Produce sensations of increased muscular power. Stimulate the nerve power.

COBDEN'S Pills (Quinine & Phosphorus). Mr. HOWARD PAUL, 271 Strand, London, writes, October 3, 1877:—"I beg to testify to the efficacy of 'Cobden's Pills.' They are an excellent tonic and nerve stimulant, and most useful in relieving the lassitude that frequently follows extra mental or bodily exertion. I have been considerably benefited in my general health by their use, and recommend them to my friends as opportunities occur."

COBDEN'S Pills (Quinine & Phosphorus). Mr. W. RANDALL, of Sanger's Amphitheatre, writes, October 8, 1877:—"I have derived immense benefit from taking 'Cobden's Pills.' For a long period I had been a martyr to nervous debility, and the existence I endured was sometimes unbearable. After taking them three weeks I am a new man. I eat well and sleep well, and giddiness, timidity, and lassitude have entirely gone."

COBDEN'S Pills (Quinine & Phosphorus). Are invaluable as a stimulant or brain tonic. They act, not as a stimulant only, but as a substitute, to some extent, for rest. A couple taken an hour or so before cessation of the day's work are found to remove sensations of fatigue, to give a clearness and dexterity to the mind, to produce appetite and a healthy digestion, and to conduce subsequently to the quiet sleep of which overwork so constantly deprives those whose occupation is mental.

COBDEN'S Pills (Quinine & Phosphorus) Mr. R. J. HAMILTON, 7 Salford Terrace, Tonbridge, writes, January 29, 1878:—"I can testify to their ('Cobden's Pills') being most valuable in relieving severe pains in the head, as also for Neuralgia."

COBDEN'S Pills (Quinine & Phosphorus). They act directly on the blood, vitalising and enriching it to a surprising degree, building up the system, and throwing off the germs of disease. They thoroughly recruit the general bodily health, and restore the nervous system to a proper healthy condition, no matter from what cause impaired.

COBDEN'S Pills (Quinine & Phosphorus). Should be adopted by all abstainers as having a better and more lasting effect as a stimulant than alcohol, without possessing any of its terrible consequences. They have a certain and speedy effect in repairing the partial dilapidations Time or Intemperance may have effected on the system. They fortify it against contagion, and infuse health and vigour to resist disease.

COBDEN'S Pills (Quinine and Phosphorus). The Rev. JOHN SHEWARD, writes from Milton, Sittingbourne, Kent, October 29, 1878:—"I am happy to inform you of the great benefit I have derived from your 'Cobden's Quinine and Phosphorus Pills.' I have been a sufferer for many months from extreme diarrhoea, great weakness, and severe mental depression; my nerves were so shattered that I dreaded the simplest duties, and lost all energy and pleasure in the performance of them. The despondency I endured became almost unbearable. I tried so many things without avail, that I began to fear my complaint would refuse to yield to any treatment. I saw your Pills advertised, but my little faith prevented me sending for them until the 7th inst., when I determined to try a 2s. 9d. box. The only thing that I now regret is that I did not send for them sooner. I have been taking them just over a fortnight, and the change in my health for the better is very marked. I have lost that horrible depression, my nerves are much stronger, and my general health very much improved. I cannot express how truly thankful I feel for the remarkable and pleasing change. I shall continue to take the Pills, and always resort to them on the first intimation of failing health."

COBDEN'S Pills (Quinine & Phosphorus). Vitalise, purify, and enrich the blood. Regulate the supply of blood to diseased nerves. Nourish diseased spinal nerves. Act as a brain tonic. Act as a general tonic. Are infallible in Neuralgia. Invigorate the whole system. Are the best tonic. They afford a ready mode of gaining strength. Are pre-eminent as a means of gaining appetite. Particularly useful for delicate females. Powerfully assist the digestive organs. Throw off germs of all diseases, and thoroughly recruit the general bodily health.

COBDEN'S Pills (Quinine & Phosphorus). May be considered a specific in Neuralgia. Their remarkably rapid and lasting effects in this complaint are perhaps their most striking therapeutical power. In this as in that of some other diseases, they exert a double power; in some instances merely regulating the blood supply to the affected nerves—in others acting in addition as a tonic or nourisher of the diseased spinal nerves, or of the affected nerves themselves. Three doses will invariably cure.

COBDEN'S Pills (Quinine & Phosphorus) increase the capacity for mental and physical exertion. If the patient has the dose while in a state of fatigue, then he feels his strength renewed; if while in a state of despondency he takes a more cheerful view of things. A state of depression does not ensue; therefore, whilst acting as a stimulant they differ from all other stimulants, as they leave no distressing after effects.

COBDEN'S Pills (Quinine & Phosphorus). Mr. H. COLEBY, Schoolmaster, Nutley School, Uckfield, writes, October 25, 1877:—"I can speak most highly of your 'Cobden's Pills' as a cure for Neuralgia and severe pains in the head. My sister suffered much for months, without finding any relief from other advertised remedies, till she tried a few doses of the Pills, which completely cured her. This was in May last, and she has not had a return of the pain. I have recommended them to several of my friends, and shall continue to do so, as I am thoroughly convinced of their therapeutical value."

COBDEN'S Pills (Quinine & Phosphorus).—Mr. RICHARD ROBINSON, Schoolmaster, All Saints' School, Crawley Down, Crawley, writes, November 19, 1877:—"I and my wife took 'Cobden's Pills,' and have derived considerable benefit from them—especially me. My appetite is increased, and I work better, sleep better, feel more 'a master' than I have for some years, and I am very pleased with and thankful for the results."

COBDEN'S Pills (Quinine & Phosphorus). Assist the digestive juices to convert what we eat and drink into healthy matter, so as to afford proper nourishment to the body. Are most useful in allaying the nervous, irritable, and weakly state occasioned by overwork, mental anxiety, loss of rest, violent shocks, fast living, overtaxing the powers, or from any of the causes combined under the head of "indiscretions of youth." They are easy to take, being very small and perfectly tasteless. They are prepared with the greatest care by duly qualified Chemists with improved machinery and all the modern appliances for producing perfect admixture.

COBDEN'S Pills (Quinine & Phosphorus). Are food for the brain, blood and nerves. Are a specific in Ague. Are infallible for all Low Fevers. Are a preventative of Contagion. Are very useful in Rheumatism. Are given with success in Gout. Are the best remedy for failing powers. They cure depression of spirit. Cure pains in the back. Cure Blood Poisons. Cure Melancholia. Cure Skin Eruptions. Cure Languidness. Cure Impotence.

SPECIAL NOTICE

AGENTS WANTED.

Arrangements will be made with gentlemen undertaking the Agency and ordering not less than £5 worth for a local house to house distribution of handbills bearing their names and addresses. Special arrangements as to advertising the names of agents abroad. Handbills any language.

All Wholesale Houses, or of the Sole Proprietors,

THE SUSSEX DRUG COMPANY, 135 Queen's Road, Brighton

**GREAT SAVING OF
MONEY AND LABOUR.**

SOMETHING NEW

**ELEGANCE AND
DURABILITY COMBINED.**

PATENT RECESS LABELLED SHOP ROUNDS.

Parties about to Open New Establishments or Refit Old Premises should compare following Nett Prices.

THESE PRICES INCLUDE GLASS LABELS ATTACHED TO BOTTLES READY FOR USE.

FLINT GLASS.				BLUE GLASS.			
Size.	Height.	N.M.	W.M.	N.M.	W.M.	N.M.	W.M.
16 ounce	8 inches	16/6	18/6	20/	22/	20/	22/
20 "	9 "	17/6	20/	21/	23/	22/6	26/6

A SHEET OF FACSIMILE LABELS SENT ON RECEIPT OF TWO STAMPS.

Prices of other Shop Bottles, Pots, &c., on application.

Sample Bottle sent on receipt of 1/7 in stamps.

Mr. W. BRAY, Chemist, Glasgow, writes—"They are everything that can be desired, and are greatly admired by all who see them."
Mr. D. D. DEANS, Chemist, Melrose, writes—"Am immensely pleased with these new hand bottles; they are really magnificent; there is no comparison between them and the old shop rounds as regards either price or appearance, and then they will never change, as the labels are literally indestructible."
Messrs. FRAZER & GREEN, Glasgow, have much pleasure in testifying to the satisfaction they have had in the use of these bottles, which have been in their Charing Cross Branch for fully two years. The facility with which they can be kept thoroughly clean without possibly injuring the labels is only to be appreciated by practical experience."

Mr. ALEX. KINNINMONT, F.C.S., Pharmaceutical Chemist, Glasgow, writes—"I have had these bottles in constant use for over four years and am confidently recommend them for their clean and brilliant appearance and durability. They are also safer to use than the ordinary labelled bottles, as, from having the name of the contents all in front in two lines, there is much less danger of mistake."

SOLE AGENTS:

GLASGOW APOTHECARIES' COMPANY, 32 & 34 Virginia Street.

TESTIMONIALS.

"Glasgow, July 21, 1879.—I have had these bottles in constant use in my branch establishment for over four years, and can confidently recommend them for their clean and brilliant appearance and durability. They are also safer to use than the ordinary labelled bottles, as, from having the name of the contents all in front in two lines, there is much less danger of mistake.—ALEX. KINNINMONT, F.C.S., Pharmaceutical Chemist."

"Melrose, July 22, 1879.—Am immensely pleased with these new bottles; they are really magnificent; there is no comparison between them and the old shop rounds as regards either price or appearance, and then they will never change, as the labels are literally indestructible.—D. D. DEANS, Chemist."

"Glasgow, August 6, 1879.—The new Recess Labelled Bottles supplied by you for my Pollokshields Branch, are everything that can be desired, and are greatly admired by all who see them. They are so much superior in appearance and design to the old style that I am re-fitting my premises here with them.—LIAM BRAY, Chemist, Paisley Road."

"Glasgow, August, 1879.—We have much pleasure in testifying to the satisfaction we have had in the use of these bottles, which have been in our Charing Cross Branch for fully two years. The facility with which they can be kept thoroughly clean, without possibly injuring the labels, is only to be appreciated by a practical experience of their use.—FRAZER & GREEN, Chemists to the Queen."

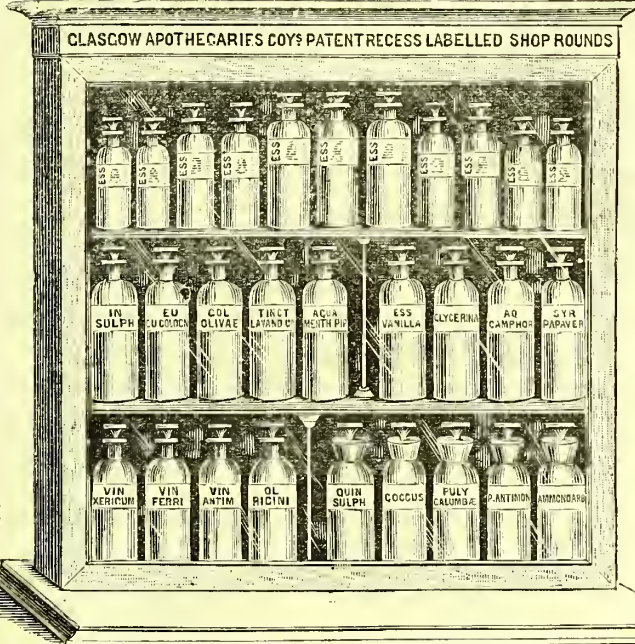
"Glasgow, January 6, 1880.—With the Recess Labelled Bottles you supplied me, I fitted up the surgery of the *s.s. Owen*, lately built on the Clyde, at a cost of £150,000—the largest vessel in the world except the *Great Britain*, and the most exquisitely fitted passenger ship afloat. I am just recipient of a note from the Superintendent of Stores and the Surgeon, which both express their highest satisfaction with them, and I may add that they are indeed 'perfect models'.—J. WALLS WHITE, M.D., Morrison St."

"Glasgow, March 10, 1880.—The Patent Recess Labelled Bottles sent me for my new shop are magnificent. Their appearance is everything one could desire, and they are so handy to use, the eye catching the label at once. I think every chemist should dispose of his old bottles, and go in for the new ones at once. The Glass Labels you also supplied for my drawers are a great improvement on the old ones.—HENRY F. WELLS, Chemist, West Clyde Street."

"Glasgow, March 10, 1880.—I am much pleased with the Patent Recess Labelled Bottles, and consider them a great improvement on the old style. I require more bottles I will certainly order them.—WILLIAM LAWSON, Chemist."

"Glasgow, March 10, 1880.—I am greatly pleased with the Patent Recess Labelled Bottles which I bought from you. They are very pretty, the latest improvement, and very well fitted. The labels, however, are the greatest improvement, especially for Acids, Oils, Syrups, and many others which soon efface or destroy the old styles. It appears to me that they cannot get effaced, and will keep their distinctness and beauty for ever.—J. LINDSAY, M.D."

"Glasgow, March 10, 1880.—I am very much pleased with the Patent Recess Labelled Bottles. They not only look well, but are very useful. They only require to be known to command a very ready sale.—MACCREATH, Chemist."



TESTIMONIALS.

"Campheltown, March 11, 1880.—I am thoroughly well pleased with the Patent Recess Labelled Bottles I had from you lately. They are beautiful to look at— attracting the attention of the most unobservant, and calling forth the most laudatory remarks. The writing on the labels is much more distinct than that of the old style, being printed on a clear white ground and in two lines, thus keeping every letter in full view, while the value of the covering of glass as a protection can hardly be over-estimated. The stoppers are well ground, thus preventing loss from evaporation. Altogether, I think these Bottles are about perfect.—ALEX. LANTON, Ch. mist."

"Paisley, March 11, 1880.—The new Recess Labelled Bottles had from you are both handsome and handy for use, and my old shop bottles cut a sorry figure on the shelves beside them.—JAMES BUCHANAN, Chemist."

"Airdrie, March 11, 1880.—I am much pleased with the Patent Recess Labelled Bottles which I had from you. The labelling is clear, always bright, and cannot be rubbed off, tarnished, or destroyed, without breaking the glass. I can recommend them to anyone about to fit up drug shop as being a great improvement in style and finish on any bottle hitherto in use by druggists.—JOHN HARVEY, Chemist."

"Infracombe, March 11, 1880.—I have almost entirely refitted my shop with your Patent Recess Labelled Bottles, and am much pleased with the result. They are greatly admired by all who see them. I consider them far superior to the old style in neatness and elegance of appearance, and the advantage of having an indestructible label is apparent to all.—A. SMITH, Chemist."

"Wishaw, March 12, 1880.—I am much pleased with the Patent Recess Perfume Bottles I had from you. The Vignettes are quite a work of art, remarkable alike for their elegance and taste.—T. B. MACFARLANE, Chemist."

"Dumfries, March 15, 1880.—The Recess Perfume Bottles I had from you look so well that I purpose soon replacing my shop bottles with your new Recess Shop Rounds, as they have so much better an appearance, combined with the indestructible label.—COLIN CAMPBELL, Chemist."

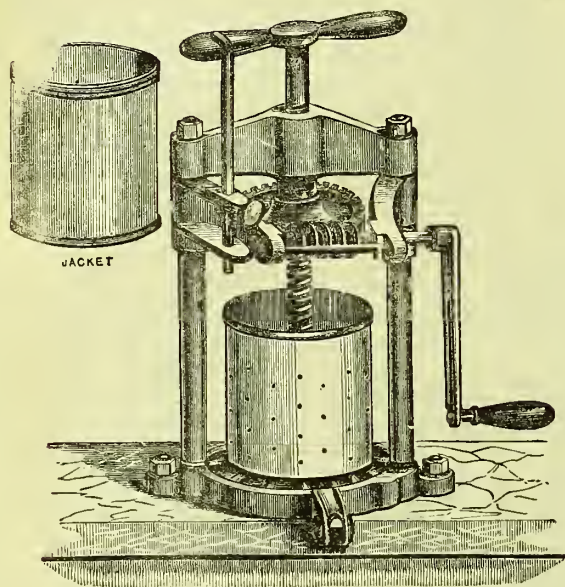
"Pollokshields, March 16, 1880.—The Patent Recess Labelled Bottles, a wonderful variety of which may be seen at Glasgow Apothecaries' Hall, Virginia Street, City, are a very decided improvement upon those formerly in use as dispensing bottles. They are extremely legible from the clearness of the letters and the concentration of the words, and are as a whole ornamental in no small degree, while in certain cases they are admirably artistic. Dispensing chemists must feel it a comparative pleasure to handle and work with the new bottles.—ROBERT BROWN, M.D."

"Edinburgh, March 16, 1880.—The new Recess Glass Labelled Bottles you supplied are really very handsome. They are quite a set-off to the counter, and command the admiration of my customers.—THOS. SYMINGTON, Chemist."

"Londonderry, March 27, 1880.—The Patent Recess Labelled Bottles have given the utmost satisfaction. As shelf furniture they are a decided improvement on the old style. For their finished and effective appearance, indestructibility of label, and uniformity of make, although costing little more, I consider them worth triple the price of the old bottles; they are very attractive, and I have frequently to hand one of them to a customer for inspection. A medical man who dropped in to see them says they are very superior to anything he has seen.—HENRY TAFFEE, Chemist, Waterloo Place."

NEW DOUBLE-ACTION TINCTURE PRESS.

(REGISTERED.)



THIS Press is intended to supply a want to which attention has recently been directed in the leading journals of Pharmacy, and to place within the reach of Chemists and Druggists a means of removing the maximum amount of menstruum from the marc of Tinctures, and the various preparations for which pressure is required in the Pharmaceutical Laboratory, by the exertion of a power hitherto unattainable without resort to Hydraulics, and at a cost but slightly exceeding that of the ordinary Tincture Press.

The minimum power of an ordinary one-gallon press is admitted to be about four tons, the pressure obtained by the action of the simple horizontal lever and screw; whereas by the further application of the side lever, spiral screw, and cog wheel with which this Press is furnished, the pressure is increased in a ratio of SIX TO ONE, thus giving an equivalent of 24 tons as the least force exerted upon the whole area of the Press, and this after making a MORE THAN USUAL allowance for friction.

The Bed of the Press is furnished with numerous divisions, converging to a central channel, by which the liquid is conveyed through a spout projecting from it, and furnished with a lip upon which the vessel used as a receptacle can be suspended, and the perforated Cylinder is encased in an iron jacket to prevent the escape of the liquid when the Press is in operation.

In order to steady the horizontal lever whilst the Press undergoes the force resulting from the application of the side lever, a strong iron clamp is attached, adjusted by a thumb-screw, as shown in illustration.

Subjoined will be found a few of the many Testimonials received from Purchasers.

DIRECTIONS FOR USE.

The following simple directions, carefully followed, will be found to result satisfactorily.

Let the Press be FIRMLY SECURED to the slab or table upon which it is to work. Oil the bright parts thoroughly with sweet oil, lubricate the black working parts with free grease, such as goose grease, neat's-foot oil, or tallow, to either of which the addition of a little black lead will be advantageous. For all purposes where a simple pressure is required, use the horizontal lever, and in cases where the extra power is required, apply the side lever after the horizontal lever has been fully exerted.

N.B.—Always relieve the Screw by means of the Horizontal Lever.

PRICE TO THE TRADE.

1 GALLON	...	...	£4 0 0	3 GALLON	...	...	£7 15 0
2 GALLON	...	...	£5 10 0	4 GALLON	...	...	£11 0 0

LESS USUAL DISCOUNT.

TESTIMONIALS.

101 HIGH HOLBORN, LONDON, W.C.,
Messrs. LYNCH & Co.,

GENTLEMEN,—We beg to say we have used your New Tincture Press with the greatest success for small quantities; we use hydraulic power for the larger preparations. We can with confidence testify as to the strength of the little press we had from you.

We remain, gentlemen, yours faithfully,
BURGESS, WILLOWS & WILLOWS.

HIGH STREET, STOKE NEWINGTON, January 25th, 1872.

GENTLEMEN,—The Double-Action Tincture Press you supplied me with last year is a decided success. I have used it several times with equally satisfactory results; the saving effected will cover the cost in twelve months.

Yours faithfully, THOS. J. W. TIPPING.

HIGH STREET, COVENTRY, December 17th, 1872.

GENTLEMEN,—In reference to yours of the 13th inst., I consider that the "Tincture Press" I had from you is the best hand-press yet made, and capable of giving out quite as much power as you represent. It is as great an improvement with regard to the old-fashioned press as the locomotive of the present day is to that made by Stephenson.

Yours truly, WILLIAM AVISS.

17 ST. GEORGE'S CROSS, GLASGOW, December 14th, 1872.

GENTLEMEN,—"Lynch's New Tincture Press" is certainly the best I have yet seen or made use of; the pressure one person is enabled to put on seems sufficient for all practical purposes.

I am, yours faithfully, J. M. FAIRLIE.
The Glasgow Apothecaries' Co., 34 Virginia St., Glasgow.

2 LONDON STREET, NORWICH,

June 2nd, 1874.

GENTLEMEN,—Enclosed you have cheque for Press, which I am much pleased with. I should be afraid to say how little waste we had in pressing off four gallons Tincture Calumba this morning; the marc was left quite dry.

I am, yours truly, OCTAVIUS CORDER.

93 DEWSBURY ROAD, LEEDS,

June 22nd, 1878.

GENTLEMEN,—In respect of the Press, I am very well satisfied with the working of it. I consider the application of the side lever to make it the most effective press in use for hand power.

Yours truly, ROBERT LESTER.

33 LOW FRIAR ST., NEWCASTLE-UPON-TYNE, Dec. 12th, 1878.

GENTLEMEN,—The Tincture Press I had from you in October last is a very good one; it has power sufficient for any purpose, and is very suitable for extracting vegetable juices.

Yours respectfully, PHILLIPS SPENCER.

OXFORD,

August 27th, 1878.

GENTLEMEN,—I am very pleased with the working of the Tincture Press you forwarded me recently.

Yours faithfully, HENRY GEO. VARNEY.

Manufactured only by

LYNCH & CO., 171a and 171b Aldersgate Street, LONDON, E.C.

Literary and Scientific.

WORKS BY DR. DOBELL,

Consulting Physician (late Senior Physician) to the Royal Hospital for Diseases of the Chest, &c.

Just published, a New and Enlarged Edition, carefully Revised and Annotated, with Coloured Plate,

On Loss of Weight, Blood-Spitting, and LUNG DISEASE. To which is now added Part VI., on the FUNCTIONS and DISORDERS of the LIVER, and their Management in accordance with the Results of Modern Discovery.

Affections of the Heart and in its Neighbourhood. Cases, Aphorisms, and Commentaries. Illustrated. Second issue.

On Winter Cough, Catarrh, Bronchitis, EMPHYSEMA, ASTHMA. Coloured Plates. Third Edition.

Practitioners' and Students' Guide to PHYSICAL DIAGNOSIS: Demonstrations of Diseases in the Chest. Coloured Plates.

On Diet and Regimen in Sickness and HEALTH, and on the Interdependence and Prevention of Diseases, and the Diminution of their Fatality. Sixth Edition.

Report on the Use of Pancreatic EMULSION and PANCREATINE, as first introduced into Medical Practice by Dr. Dobell in 1863.

Reports on the Progress of Practical and SCIENTIFIC MEDICINE in DIFFERENT PARTS of the WORLD. Two Vols.

Dr. Dobell's Reports on Diseases of the CHEST. Contributed by distinguished coadjutors in different parts of the world. Three Vols.

A Descriptive Catalogue of the above Works, with Prices, Lists of Illustrations, Opinions of the Press, and the Table of Contents of each volume, in application at LEWIS'S LIBRARY, 136 Gower Street, London, W.C.

NOTICE.—Now ready. Revised and Enlarged. The FOURTH Edition of

DR. PROSSER JAMES ON SORE THROAT;

its Nature, Varieties, and Treatment, and connection with other Diseases. With COLOURED PLATES, 6s. 6d.

J. & A. CHURCHILL, 11 NEW BURLINGTON STREET.

Now ready, fcap. 8vo., 2s. 6d.

A NOTE-BOOK of SOLUBILITIES, arranged chiefly for the Use of Prescribers and Dispensers. By JOHN AGLE, Member of the Pharmaceutical Society.

London: H. K. LEWIS, 136 Gower Street.

**3D. in the Shilling Discount
for Cash with Order.**

Books sent to any of the Wholesale Houses for enclosure.

HENRY KIMPTON, Chemical and Scientific Bookseller and Publisher, 82 High Holborn, London, W.C.

See Catalogue One Stamp. To the Pharmaceutical Society of Great Britain.

VALUABLE NEW WORKS.

Now ready, Sixth Edition, price 18s.

MODERN MEDICAL THERAPEUTICS.

A compendium of recent Formula and Specific Therapeutical directions, from the practice of eminent Contemporary Physicians, English, American, and Foreign. Edited by G. H. NAPHEYS, A.M., M.D.

"Edition after edition sells with great rapidity."—*Medical Press.*

"A summary of the best modes of treatment."—*Practitioner.*

"The volume will supply what many practitioners are often anxious to possess for reference in the practice of their art."—*Glasgow Medical Journal.*

"No work on treatment has proved so valuable as Dr. Naphey's."—*Chemist and Druggist.*

8vo., pp. 369, with numerous Tables, 9s.

MATERIA MEDICA AND PHARMACY.

For the use of Students preparing for Examination. By W. HANDSEL GRIFFITHS, Ph.D., F.C.S., F.R.C.P. Edin., &c.; Edited by G. F. DUFFEY, M.D. Dub., Examiner in Materia Medica Queen's University of Ireland.

"One of the ablest, if not the best, work on the subject in the English language."—*Medical Press and Circular.*

"Conveys a large amount of reliable information in a clear and attractive form."—*Dublin Journal of Medical Science.*

"Clearly and succinctly written, and thoroughly practical in its teaching. . . . Will be found of the very greatest value by all students."—*The Students' Journal.*

Fourth Edition, price 1s.

POSOLOGICAL TABLES.

A Classified Chart of Doses, showing at a glance the Dose of every Official Substance and Preparation. By HANDSEL GRIFFITHS, Ph.D., F.R.C.P., &c., late Professor of Chemistry Ledwich School of Medicine.

Revised Edition, crown 8vo., with Movable Plate, price 6s.

HANDBOOK OF POPULAR MEDICINE.

With over 300 Dietetic and Remedial Recipes. Especially adapted for the use of Colonists, Emigrants, and others out of reach of medical aid, and for general instruction and reference. By G. W. NAPHEYS, A.M., M.D., &c.

Crown 8vo., cloth, price 2s. 6d.

CHEMICAL NOTES FOR PHARMACEUTICAL STUDENTS.

Specially prepared for Examination purposes. By A. RIVERS WILLSON, Ph.D., F.C.S.

Fourth Edition, Enlarged and Revised, with 280 Illustrations, half-bound morocco, 30s., post free.

PARRISH'S TREATISE ON PHARMACY.

Containing the official and many unofficial Formulas, and numerous examples of extemporaneous Prescriptions. By EDWARD PARRISH.

"There is nothing to equal Parrish's Pharmacy in this or any other language."—*Pharmaceutical Journal.*

Second Edition, with numerous Illustrations, price 5s.

THE URINE: A GUIDE TO ITS PRACTICAL EXAMINATION.

By J. TYSON, M.D., Professor of Morbid Anatomy and Pathology in the University of Philadelphia.

"The most practical work on the subject."—*Medical Press.*

HUMAN ANATOMY AND PHYSIOLOGY

ILLUSTRATED BY A SERIES OF

MOVABLE ATLASES OF THE HUMAN BODY,

BY MEANS OF SUPERPOSED COLOURED PLATES.

Authorised English Editions from the French of LE DR. WITKOWSKI.

PART I.—NECK AND TRUNK. Text by Dr. R. HUNTER SEMPLE. Price 7s. 6d.

PART II.—THE THROAT, and the MECHANISM OF VOICE, SPEECH, and TASTE. Text by Mr. LENNOX BROWNE, F.R.C.S. Ed. Price 7s. 6d.

PART III.—THE FEMALE ORGANS OF GENERATION. Text by Dr. PALFREY. Price 7s. 6d.

PART IV.—THE EYE AND THE MECHANISM OF VISION. Text by Mr. HY. POWER, M.B., F.R.C.S. Price 7s. 6d.

PART V.—THE EAR AND TEETH. Text of the Ear by LENNOX BROWNE, F.R.C.S. Ed.; of the Teeth, by Hy. SEWILL, M.R.C.S. Price 7s. 6d.

LONDON: BAILLIÈRE, TINDALL & COX, PUBLISHERS, 20 King William Street, Strand.

* * English and Foreign Works collected and forwarded to all parts of the world.

ESTABLISHED 1842.

THE SCHOOL OF PHARMACY*Of the Pharmaceutical Society of Great Britain.*Chemistry and Pharmacy, Prof. REDWOOD. | Botany and Materia Medica, Prof. BENTLEY. | Practical Chemistry, Prof. ATTFIELD.
Demonstrators, Dr. SENIER and Mr. W. R. DUNSTAN.**THIRTY-EIGHTH SESSION, 1879-80, extending from October 1 to July 31.***Application for admission to the School, for Prospectuses, or for further information, may be made to the Professors or their Assistants in the Lecture Room or Laboratories, 17 Bloomsbury Square, London, W.C.***THE CENTRAL SCHOOL OF CHEMISTRY AND PHARMACY,**

173 MARYLEBONE ROAD (OPPOSITE LISSON GROVE), N.W.

DIRECTORS - - - MESSRS. LUFF & WOODLAND.

Teacher of Chemistry and Physics, Mr. A. P. LUFF, F.C.S., F.L.S., Pereira Medallist, &c.

Teacher of Pharmacy, Botany, Materia Medica, &c., Mr. J. WOODLAND, F.C.S., F.L.S. M.P.S., &c.

**EDINBURGH SCHOOL OF
PHARMACY AND CHEMISTRY,**
MARSHALL STREET, NICOLSON SQUARE.The Sessions open at this School in May, October, and January.
ONE Session's Attendance has hitherto been found sufficient
to secure success. For particulars apply to—
R. URQUHART, Sec.**PRELIMINARY AND MINOR EXAMINATIONS.****STUDENTS** who really desire to be thoroughly and carefully prepared, so as to **ENSURE SUCCESS**, should study under the **NO PASS, NO PAY, POSTAL SYSTEM**. For particulars enclose stamped envelope to **TUTOR**, care of Mr. Filtness, Rotherfield. Reference to pupils who passed the last examinations.**PRELIMINARY AND MINOR.****ALL** Students who are preparing should send for particulars of a method of study which will enable them to pass with ease. Enclose stamped envelope to **CHEMIST**, care of Mr. J. Edwards, Wye, Kent. Gratis, Minor examination questions. "Equations Simplified," 12 stamps.**JUDD'S AIDS TO EXAMINATION.****PRELIMINARY.**—(1) Examination Papers worked out, 1879-80, 1s. 6d.; (2) Thema, a Mnemonic Key to Essay Writing, 6d.; (3) Cesar made Easy, with Lecture on Self-Preparation, &c., 2s. 7d.; (4) Arithmetical Tests, with Metric System Exercises, 6d. The set, post free, 3s. 2d. **MINOR.**—(1) Botany, 6d., or with Chart, 1s. 0d.; (2) Equations, 2s. 1d.; (3) Medical Latin and Prescription Reading, Lessons in, with Rules and Exercises for construing into Latin for the Minor, 2s. 1d.; (4) Autograph Prescriptions, lithographed from originals typical of the Examination, 1s. 0d.; (5) Fasciculus Prescriptionum, or Dispensing Exercises of Previous Minors, 6d. The entire set, free, 4s. 8d.

GRATIS for Stamp, "JUDD'S HOW TO DESCRIBE PLANTS FROM ROOT TO NATURAL ORDER," 2nd Thousand, Re written.

* * Post Office Orders payable at Southampton Row, W.C.

Letters to Mr. H. JUDD, 29 Great Coram Street, W.C.

MINOR AND PRELIMINARY.**TULLY'S** Postal System is the most successful method of preparing without leaving business. Fee—Minor, one guinea; Preliminary, 10s. 6d. Send stamped envelope for particulars and copies of testimonials to Mr. J. TULLY (Hills Prizeman), Chemist, Tunbridge Wells. "How to Write Equations," 12 stamps. "Tully's Arithmetic and Metric System," 2s.**FOR TELLING THE TEMPERATURE OF THE BLOOD IN CASES OF FEVER.****With Imperishable Index, as noticed in the "Lancet," November 2, 1878.***Vide also Notices in CHEMIST AND DRUGGIST, September, 1878, DESIGN AND WORK, &c.*

Price, 72s. per dozen. Ditto, with New Improved Enlarged Bore, showing up the Mercury Column much more easily, 84s. per dozen.

Can be obtained only of the Sole Inventors and Makers, F. DARTON & CO.; are much superior to the ordinary contracted Clinical Thermometers and not being liable to get out of order, as is usually the case with Clinical Thermometers, are therefore specially suited for export. Certificates from Kew Observatory supplied at a cost of 1s. 3d. each extra.

PLAIN CLINICAL THERMOMETERS, in Boxwood Cases, 4 in. or 6 in., 54s. per dozen. Ditto, in Ebony Cases, with Contracted Stem and Indelible Scales, 60s. per dozen. Ditto, 4 in., in German Silver Cases, 3s. per dozen extra. Ditto, 4 in., in Ivory Cases, with Wings to prevent rolling, 12s. per dozen extra. Ditto, with both Fahrenheit and Centigrade Scale, 18s. per dozen extra. One Bent and one Straight Clinical Thermometer, in Velvet-lined Morocco Case, 6 inches long, 10s. 6d. per set.

Any of these supplied in Centigrade Scales instead of Fahrenheit if required without extra charge.

NEW IMPROVED LARGE SIZED CLOCK BAROMETERS, in SOLID OAK FRAME. Clock has a Jewelled Eight-day Movement and will go in any position. The Aneroid and Thermometer are our own manufacture, and guaranteed accurate; the frame being of solid oak is not liable to damage through heat or damp. Size of frame, 30 in. by 15. Price £4 10s.

New Price List, with Copperplate Illustrations of various patterns in Clocks and Barometers, Thermometers, &c., on application. Any of these goods packed carefully and safely for the country or abroad.

The Trade supplied at lowest prices. Special quotations for large quantities.

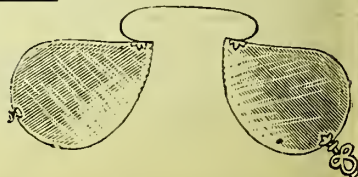
ELECTRIC BELLS.

2½-inch Electric Bell, with turned wood Push Piece, constant Battery, and 20 yards of Line Wire, 16s. 6d.

The (Invalid's) Electric Bell, with 30 yards of silk-covered Connecting Cord, Ebony Pear-shaped Push Piece, and Battery complete, in polished Mahogany Case, 40s.; ditto, with 50 yards of Cord and larger Bell, 50s.

SPECTACLES & FOLDERS.

We are now prepared to supply our customers with all kinds at lowest trade prices. Samples and Prices on application.

**F. DARTON & CO., 45 St. John Street, West Smithfield, London, E.C. Works: St. John's Lane**
Agent for Manchester and District: Mr. A. BASTIN, 72a Lancaster Avenue, Manchester.

“SYSTEMA OMNIA VINCIT.”

SOUTH LONDON SCHOOL OF PHARMACY.

SCHOOL BUILDINGS

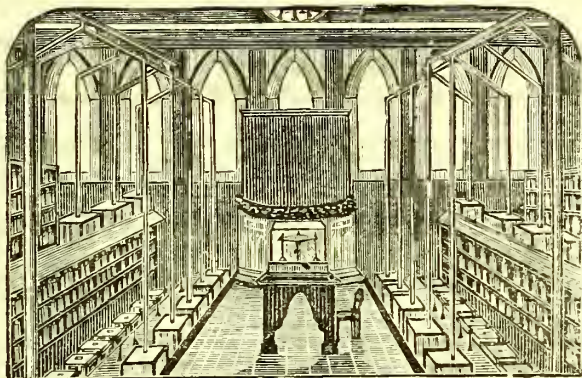
AND

LABORATORIES

AT

325 KENNINGTON ROAD,

S.E.



SECRETARY'S OFFICE

AND

ANALYTICAL DEPARTMENT

AT THE CENTRAL

PUBLIC LABORATORY,

KENNINGTON CROSS, S.E.

Actual Laboratory
Accommodation
for 100 Students.

Chemical and Micro-
scopical Analyses for
the Trade.

ELEVENTH SESSION—1879-80.

The Laboratory of this Institution (represented above) is justly acknowledged to be the most elegantly fitted in Great Britain. The nature of the instruction given is proved by upwards of 1,200 living witnesses to its success now on the roll of registered Chemists, as well as by the positions occupied by its non-pharmaceutical students both as Medical Officers of Health and Analysts. The Directors continue to spare no expense in giving the greatest facilities, so as to ensure to students both present success and permanent benefit in after life. All expensive apparatus provided by the school, and students may enter at any time provided there be a vacancy. The Session extends from September 15 to July 20, but students are not bound to take a longer course than they find necessary.

For further particulars apply (enclosing stamp) to W. BAXTER, Secretary.

THE “SOUTH LONDON”
SERIES OF
PHARMACEUTICAL
TEXT-BOOKS.

By Dr. MUTER, M.A., F.C.S.,

Director of the South London School
of Pharmacy, and President of the Society
of Public Analysts.



THE “SOUTH LONDON”
SERIES OF
PHARMACEUTICAL
TEXT-BOOKS.

By Dr. MUTER, M.A., F.C.S.,

Director of the South London School
of Pharmacy, and President of the Society
of Public Analysts.

ORGANIC MATERIA MEDICA. Third Edition, 594 pp. 8vo., price 12s. 6d.

“The work now before us is as well fitted for the medical student as for the student in Pharmacy only. . . . We would highly commend the portions relating to the description of the drugs, but still more those relating to their chemistry.”—*Medical Times and Gazette*, 13th July, 1878.

“Contains everything that an ordinary student should know, and much more. The source, method of collection, uses, description, chemistry, and pharmacology of each substance are given in clear and concise terms, which show the practised teacher. We can highly recommend this work to our pharmaceutical readers.”—*Chemical News*, 14th June, 1878.

“He who turns to this book need not fear that he will burden his mind with unnecessary details. We may safely leave it to its own merits, and the renown of the author and his school.”—*Chemist and Druggist*, 15th May, 1878.

ANALYTICAL CHEMISTRY (for Pharmaceutical and Medical Students).

Second Edition, royal 8vo., price 7s. 6d.

PHARMACEUTICAL CHEMISTRY (Synthetical and Descriptive). Second Edition. Royal 8vo. Price 10s. 6d.

“These volumes form the second edition of a work which has found favour with pharmaceutical and medical students. . . . The author has done wisely in dividing the work, and has in many other respects improved it.”—*Lancet*, 23rd August, 1879.

“Like all the works of the author, this book is exceedingly accurate. . . . To pharmaceutical students it will be simply invaluable, while to medical students a study of its pages will amply repay them.”—*Students' Journal*, 7th June, 1879.

“Dr. Muter has done well to divide the second edition of his ‘Pharmaceutical and Medical Chemistry’ into two separate volumes. . . . Two useful appendices have been added to the new edition, which will greatly add to the value of Dr. Muter’s already valuable work.”—*Chemical News*, 6th June, 1879.

“Muter’s ‘Chemistry’ will certainly be able to hold its own in any battle of books.”—*Chemist and Druggist*, 14th June, 1879.

Published by W. BAXTER, at the Office of the South London School of Pharmacy, Central Public Laboratory, Kennington Cross, London, S.E.; and sold by SIMPKIN, MARSHALL & Co., Stationers’ Hall Court, E.C.; and BAILLIÈRE, TINDALL & Cox, King William Street, W.C.

Now Publishing, price 15s.,

THE FOURTH EDITION OF THE
POST OFFICE DIRECTORY

OF

CHEMISTS & DRUGGISTS,
MANUFACTURING CHEMISTS,
WHOLESALE DRUGGISTS, DRY-SALTERS, PATENT MEDICINE VENDORS,
AND OTHER TRADES CONNECTED THEREWITH,
OF
ENGLAND, SCOTLAND AND WALES,
AND
THE PRINCIPAL TOWNS IN IRELAND.

The following is a List of the Trades comprised in the work, on the same plan as the former editions, the information being thoroughly revised and corrected up to the latest possible date. It contains, firstly, an Alphabetical Arrangement of every ascertainable name, under each particular Trade, in London and its Suburbs; secondly, a similar arrangement for the rest of England, Scotland, and Wales; thirdly, a re-classification under each County.

LIST OF TRADES COMPRISED IN THIS WORK.

- | | | | |
|--|--|--|---|
| Acetate of Lead Manufacturers
Acetate of Lime Manufacturers
Acetate of Soda Manufacturers
Acetic Acid Manufacturers
Aether Manufacturers
Air-tight Show Case Manufacturers
Alkali Manufacturers
Almond Pressers and Distillers
Alum Manufacturers
Aluminous Cake Manufacturers
Ammonia Manufacturers
Aniline Dye Manufacturers
Annatto Manufacturers
Anthracine Manufacturers
Antimony Refiners
Arrowroot Dealers
Arsenic Manufacturers and Merchants
Artificial Human Eye Manufacturers
Artificial Leg and Arm Manufacturers
Artificial Nose Manufacturers
Assayers
Aurine Manufacturers
Baking Powder Manufacturers
Bath and Flesh Glove Manufacturers
Benzine and Benzole Manufacturers
Benzoic Acid Manufacturers
Bicarbonate of Soda Manufacturers
Bicarbonate of Potash Manufacturers
Bi-Chromate of Potash Manufacturers
Bismuth Refiners
Bisulphate of Lime Manufacturers
Bleaching Liquor Manufacturers
Bleaching Powder Manufacturers
Blue Manufacturers
Borax Manufacturers
Bougie and Catheter Makers
Brimstone Refiners
British Gum and Gum Substitute
Makers
Bromine Manufacturers
Camphor Refiners
Capsule Makers
Carbolic Acid Manufacturers
Carbonate of Soda Manufacturers
Cattle Medicine and Dressing Makers
Caustic Soda Manufacturers
Charcoal Manufacturers
Chemical Agents—Brokers—Engineers
—Exporters—Stoppers
Chemical Balance Manufacturers
Chemical Cabinet and Laboratory Apparatus Manufacturers
Chemical Colour Manufacturers
Chemical Glass and Apparatus Manufacturers
Chemical Light Manufacturers
Chemical Manure Manufacturers
Chemical Plant Manufacturers
Chemical Stone-ware Manufacturers
Chemists—Agricultural—Analytical—
Manufacturing—Metallurgical—
Veterinary—Wholesale
Chemists and Druggists
Chest Protector Manufacturers
Chiropodists | Chlorate of Potash Manufacturers
Chloride of Lime Manufacturers
Chlorodyne Manufacturers
Chloroform Manufacturers
Chocolate Manufacturers
Chromate of Potash Manufacturers
Citrate of Magnesia Manufacturers
Citric Acid Manufacturers
Cocoa Manufacturers
Codlinal Merchants
Cod Liver Oil Importers and Manufacturers
Cork Cutters, Merchants, and Importers
Corn Flour Manufacturers
Corn Plaster Manufacturers
Court Plaster Makers
Cresote Manufacturers
Crucible Manufacturers
Dentists
Dentists' Material Manufacturers
Dietetic Preparation Manufacturers
Disinfecting Fluid Manufacturers
Disinfecting Powder Manufacturers
Distillers' Chemists
Drug Agents—Brokers—Grinders—Merchants—Valuers
Druggists—Wholesale
Druggists' Sundrymen
Drysalts
Drysalts' Brokers
Dye Manufacturers
Dye Wood Brokers—Grinders—Merchants
Eau de Cologne Importers
Elastic Stockings Makers
Elastic Surgical Band Manufacturers
Epsom Salts Manufacturers
Essential Oil Distillers—Importers
Extract of Meat Importers and Manufacturers
Fancy Brush and Comb Manufacturers
Farina Manufacturers
Filter Manufacturers
Fluoric Acid Manufacturers
French Polish Manufacturers
Fuller's Earth Merchants
Furniture Polish Manufacturers
Gazogene Manufacturers
Gelatine Manufacturers
Glass Syringe Manufacturers
Glycerine Manufacturers
Goldbeaters' Skin Manufacturers
Hair Dye Makers
Herb Growers
Herbalists
Homoeopathic Chemists
Homoeopathic Cocoa Manufacturers
Homoeopathic Medicine Vendors
Hospitals and Dispensaries
Hydrometer Makers
Hydrostatic Bed Makers | India Rubber Nipple and Nipple Tubing
Manufacturers
Indigo Brokers—Merchants
Indigo Extract Manufacturers
Infants' Feeding Bottles Manufacturers
Infants' Food Manufacturers
Iodine Manufacturers
Iron Liquor Manufacturers
Isinglass Importers and Refiners
Leech Importers
Lime Juice Importers
Linseed Meal Manufacturers
Lint Manufacturers
Lozenge Manufacturers
Magnesia Manufacturers
Marking Ink Makers
Medical Agents—Booksellers—Botanists
—Electricians—Fixture Dealers, and
Shop Fitters—Galvanic Apparatus
Manufacturers—Galvanists—Glass
Dealers—Glass Bottle Manufacturers—Label
Printers—Labelers
Plaster Manufacturers—Rubbers,
and Soap Manufacturers
Medicinal Biscuit Makers
Medicinal Capsule Makers
Medicine Chest Makers and Fitters
Methylated Spirit Makers
Microscope Makers
Mineral Teeth Manufacturers
Mineral Water Importers and Warehouse
Mineral Water Manufacturers
Morphia Manufacturers
Muriate of Ammonia Manufacturers
Muriate of Copper Manufacturers
Muriate of Iron Manufacturers
Muriate of Tin Manufacturers
Muriate of Zinc Manufacturers
Muriatic Acid Manufacturers
Mustard Manufacturers
Naphtha Distillers
Nitrate of Copper Manufacturers
Nitrate of Iron Manufacturers
Nitrate of Lead Manufacturers
Nitrate of Potash Manufacturers
Nitrate of Soda Manufacturers
Nitric Acid Manufacturers
Orchil and Cudbear Makers
Oxalic Acid Manufacturers
Patent Medicine Vendors and Warehouse
Perfumery Manufacturers
Perfumers—Wholesale and Retail
Perfumery Bottle Manufacturers
Pestle and Mortar Manufacturers
Pharmaceutical Preparations Manufacturers
Phosphate of Lime Manufacturers
Phosphorus Manufacturers
Photographers
Photographic Apparatus Manufacturers
Chemical Manufacturers—Lens
Manufacturers—Material Dealers—
Paper Makers and Importers
Picric Acid Manufacturers | Pill Box Manufacturers
Pill Machine Manufacturers
Pink Sauer Manufacturers
Platinum Manufacturers
Polishing Paste Manufacturers
Potash Manufacturers
Pyroline Potash Manufacturers
Pyrolineous Acid Manufacturers
Pyroline of Iron Manufacturers
Quicksilver Importers
Quicksilver Refiners
Quinine Manufacturers
Red Liquor Manufacturers
Respirator Manufacturers
Rouge and Carmine Manufacturers
Safflower Extract Manufacturers
Salt Cake Manufacturers
Saltpetre Refiners
Sea Salt Importers
Silicate of Soda Manufacturers
Smelling Bottle Makers
Soda Manufacturers
Soda Ash Manufacturers
Soda Crystals Manufacturers
Soda Water and Lemonade Makers
Soda Water Machine Manufacturers
Spermaceti Refiners
Spirits of Wine Manufacturers
Sponge Merchants
Stannate of Soda Manufacturers
Starch Powder Manufacturers
Stearine Refiners
Stomach Pump Makers
Strychnine Manufacturers
Sulphate of Ammonia Manufacturers
Sulphate of Copper Manufacturers
Sulphate of Iron Manufacturers
Sulphate of Potash Manufacturers
Sulphate of Soda Manufacturers
Sulphate of Zinc Manufacturers
Sulphur Refiners
Sulphuric Acid Manufacturers
Surgical Bandage Makers
Surgical Instrument Makers
Surgical Instrument Case Makers
Syphon Bottle Manufacturers
Tar Distillers and Merchants
Tartaric Acid Manufacturers
Tin Crystals Manufacturers
Tin Solution Manufacturers
Tooth Brush Makers
Toothpick Makers
Tooth Powder Box Makers
Truss Makers
Turpentine Distillers
Vanilla Importers
Vermilion Destroppers
Veterinary Surgeons
Veterinary Instrument Makers
Vinegar Manufacturers
Vitriolised Soda Bottle Manufacturers
Wadding Manufacturers
Wax Bleachers
Weighing Machine Manufacturers
Willow Box Manufacturers |
|--|--|--|---|

KELLY & CO., 51 Great Queen Street, LONDON, W.C.
 SIMPKIN, MARSHALL & CO.; and all Booksellers.

The Westminster College of Chemistry and Pharmacy.

Proprietors - Messrs. WILLS & WOOTTON.

NOTICE.—Students who have previously presented themselves for examination and failed, or have been through a course of instruction, and are desirous of entering for the JULY EXAMINATION, are advised to attend the special course of Lectures and Classes to commence on June 7th, there being a few vacant benches. Fee £2 2s.

Perpetual Fee for Lectures, Classes, and Laboratory Practice, until passed the Minor and Major Examinations, £10 10s. Students can enter at any time.

The success attending Students from the Westminster College is owing to the thorough teaching of the various subjects, each Student requiring a sound and lasting knowledge.

The annexed Pass-list for April speaks for itself, and is a more reliable guide than flattering advertisements in enabling Students to decide at which school they can prosecute their studies with the greatest success. Columns might be written upon the numerous advantages offered by this school, but we prefer to rely upon results.

EXAMINATIONS OF THE PHARMACEUTICAL SOCIETY OF GREAT BRITAIN, LONDON.

APRIL 14, 15, 16, 21, 22, 1880.

MINOR EXAMINATION.

105 Candidates were examined, 62 failed, the following 43 passed.

FROM THE

WESTMINSTER COLLEGE ALONE, 22.

Mr. H. Ashton
" A. J. Ballinger
" G. T. Bayfield
" C. J. Bennett
" J. T. Bentley
" F. W. Bolton
" A. Brooker
" A. Evison
" A. C. Goodchild
" E. A. Holloway
" H. M. Hughes
" H. R. Jones
" C. H. S. Morse
" W. J. Nethercott
" J. Phethean
" J. W. Ratcliffe
" G. H. Seward
" J. J. Shipman
" A. Steward
" G. Thompson
" C. A. Williams
" E. Wright

Total, 22.

FROM ALL

OTHER SCHOOLS COMBINED, Private and Public, 21.

Mr. J. Bamforth
" E. Blagg
" W. Burnett
" W. W. Callander
" J. E. Fletcher
" D. Guy
" A. Hagon
" A. L. Hall
" A. Hardwicke
" G. A. Hebblethwaite
" J. S. Hill
" J. Horne
" H. L. Jackson
" W. Morgan
" J. V. Parsons
" J. A. Radford
" R. H. Richards
" J. Tutton
" E. S. Waring
" F. Wellington
" J. Williams

Total, 21.

For Prospectus, &c., apply to

Mr. H. WOOTTON, Office of the School, 60 Lambeth Road, LONDON, S.E.

JOHN ORME & CO., late

M. JACKSON & CO.,

MANUFACTURER OF

SCIENTIFIC APPARATUS,

AND IMPORTER OF

ALSO

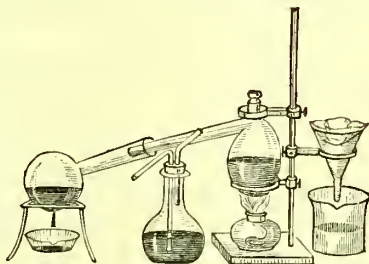
PURE

CHEMICALS

FOR

Analysis.

FINEST BOHEMIAN
AND GERMAN
GLASS AND
PORCELAIN
CHEMICAL
APPARATUS.



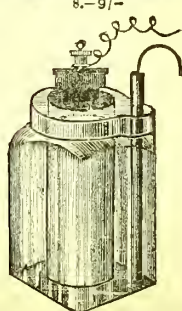
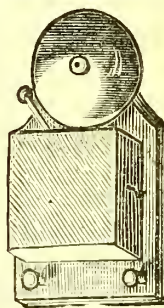
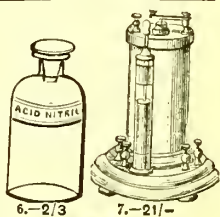
By Appointment to Her Majesty's Hon. Board of Inland Revenue; Science and Art Department and Government Schools at South Kensington; the Pharmaceutical Society of Great Britain, &c., &c.

ELECTRIC BELLS, BATTERIES, TELEPHONES, MICROPHONES,
LECTURE APPARATUS, &c.

APPARATUS SECURELY PACKED FOR THE COLONIES & FOREIGN PARTS.
PRICE LISTS AND SPECIAL QUOTATIONS ON APPLICATION.

JOHN ORME & CO., late

M. JACKSON & CO.,
65 BARBICAN, LONDON.



1.-10/6



1.-3d. to 2/6



1.-2d. to 3/-



5.-1/3

6.-2/3

7.-21/-

8.-9/-

9.-4/6

CHEMISTS' TRANSFERS.

32 LUDGATE HILL, LONDON (14 Doors from St. Paul's Churchyard).

MESSRS. ORRIDGE AND CO., CHEMISTS' TRANSFER AGENTS,

May be consulted at the above address on matters of SALE, PURCHASE, and VALUATION.

Immediate attention given to Foreign Commissions.

The Business conducted by Messrs. ORRIDGE and Co. has been known as a Transfer Agency since the year 1846, and is well known to all the leading firms in the Trade.

VENDORS have the advantage of obtaining an opinion on Value derived from extensive experience, and are in most cases enabled to avoid an infinity of trouble by making a selection from a list of applicants for purchase, with the view of submitting confidential particulars to those alone who are most likely to possess business qualifications and adequate means for investment.

PURCHASERS who desire early information regarding eligible opportunities for entering business will greatly facilitate their object by describing clearly the class of connection they wish to obtain.

N.B.—NO CHARGE TO PURCHASERS.

MESSRS. ORRIDGE & CO. are instructed to transfer—

1.—LONDON (Near).....	Returns £1,000.....	Price £1,600	12.—NORFOLK.....	Returns £1,000.....	Price £950
2.—LONDON, W.	700.....	650	13.—NORFOLK.....	abt 1,000.....	abt 600
3.—LONDON, W.	600.....	650	14.—SOMERSET.....	600.....	Offer wanted
4.—LONDON, S.	750.....	abt 700	15.—SOMERSET.....	400.....	Price £300
5.—LONDON, S.	650.....	650	16.—WARWICKSHIRE.....	1,800.....	abt 1,000
6.—CAMBRIDGESHIRE.....	400.....	200	17.—WORCESTERSHIRE.....	500.....	Valuation
7.—DEVON.....	450.....	250	18.—WORCESTERSHIRE.....	600.....	Price £425
8.—HEREFORDSHIRE.....	550.....	250	19.—WALES.....	2,600.....	2,500
9.—HERTS.....	500.....	300	20.—WALES.....	700.....	Offer wanted
10.—HANTS.....	500.....	200	21.—WALES.....	600.....	Price £500
11.—LANCASHIRE.....	700.....	650			

*Full particulars of any of the above may be obtained on application.***TERMS FOR VALUATION ON APPLICATION.****ORRIDGE & CO., 32 Ludgate Hill, E.C.****MIDLAND COUNTIES TRANSFER AGENCY.****F. J. BRETT,****VALUER TO THE TRADE,****LEICESTER.**

All kinds of Chemists' Stock and Fixtures valued. Partnerships arranged. Particulars of different classes of Businesses forwarded to Buyers.

Through this Agency Businesses are disposed of quickly, and with as little publicity as possible.

F. J. BRETT, having relinquished the Retail, is now enabled to devote the whole of his time to Transfers and Valuations.

Terms on application. May be consulted personally or by letter upon matters in connection with the Trade *entirely free of charge.*

LIVERPOOL.—Thoroughly genuine old-established Retail, in finest position in Liverpool, returning, under management, £1,000, and capable of being doubled.

LIVERPOOL.—In pretty suburb, first-class Retail and Dispensing; returns last year, £474; price, £360.

MIDLAND.—Unopposed high class Village Trade; can be made a most valuable concern to Chemist for miles; price, £350.

YORKS.—Agricultural and Family Trade of £1,800 returns; goodwill, £100; valuation about £1,000; premises to be sold on advantageous terms.

KENT.—First-class seaside Retail; returns, £700; improving part; price about £600.

LEICESTER.—Profitable Retail in great thoroughfare; returns, £300; at valuation about £200.

LONDON.—Good position, West End; established one year; fittings, &c., cost £1,400; will accept £1,000 cash; returns over £800; rapidly increasing.

BIRMINGHAM.—Thoroughly genuine medium-class trade; will bear strictest investigation; established 11 years; rent, £50; returns, £750; price, £500.

CARDIFF.—Shipping and General Retail at full prices; returns, under assistant, £750; price, £60; excellent chance.

NOTTINGHAM.—Retail, Prescribing, &c.; returns, £400; nice shop and house at low rent.

NORFOLK.—Good old Family and Agricultural Trade; returns nearly (under manager) £1,200; price about £950.

SUNDRY TRADE, showing a nett profit of £350; can be increased to an unlimited extent; price to immediate buyer, £350.

F. J. BRETT, LEICESTER.**MR. TRIPPIER,**
Medical Agent and Valuer,**79 ISLINGTON, LIVERPOOL.****FOR TRANSFER.**

LIVERPOOL (pleasant Suburbs).—A Dispensing and Light Retail Business; established 30 years; returning near £500; neatly fitted shop, well stocked; comfortable house, at very low rent.

LANCASHIRE.—Large Manufacturing Town; established over 20 years; a mixed Dispensing and Prescribing Business; returns, £700; double-fronted corner shop; good position; large house; very low rent.

NORFOLK.—Old-established mixed Country Family and Agricultural; returns, £1,200; large premises; rent moderate; an introduction given.

GLoucestershire.—Dispensing and Light Retail; returns £600; established 20 years; good position; easy rent.

SOMERSET.—Very old established General Retail, with mineral water concern attached.

MANCHESTER (Suburbs).—A Ready-money Dispensing and Prescribing Business; good position, moderate rent.

LIVERPOOL.—Light Retail and Prescribing, populous district, taking £10 per week; corner shop; price £250.

No Commission is charged to Purchasers.

A number of Businesses, in amounts from £100 to £1,200. All information on application. To facilitate matters, reference required on parties applying for the first time.

Lists of Stock for Appraisal receive immediate attention.

CHEMISTS' TRANSFERS.

17 HART STREET, BLOOMSBURY SQUARE.

MR. HINE GILBERT

May be consulted every morning, from 10 till 2 o'clock, on all matters of Sale, Purchase, or Valuation, and now submits:—

- 1.—LONDON.—Wholesale; returns £3,000; price £1,750.
- 2.—LONDON, N.—Returns £900; price £650.
- 3.—LONDON, W.—Returns £700; price £650.
- 4.—LONDON, N.E.—Returns £600; price £600.
- 5.—LONDON, N.—Returns £700; price £700.
- 6.—LONDON, S.W.—Returns £400; price £300.
- 7.—LONDON, W.—Returns £1,000; price £1,400.
- 8.—LONDON, S.W.—Returns £700; price £525.
- 9.—LONDON, S.E.—Returns £600; price £650.
- 10.—LONDON, N.—Returns £250; price £240.
- 11.—LONDON, N.—Returns £300; price £220.

17 HART STREET, BLOOMSBURY SQUARE, LONDON.

LLOYD RAYNER,

WHOLESALE AND RETAIL

CHEMISTS', SURGEONS', AND DENTISTS' VALUER,

TRANSFER AGENT,

SHOP-FITTER, AND SHOW-CASE MAKER.

EVERY DESCRIPTION OF

WHOLESALE & RETAIL DRUGGISTS', SURGEONS', AND DENTISTS' STOCKS & FIXTURES VALUED.

M. R. having had extensive experience in all branches of the Trade, is enabled to advise as to the exact value of any Business, either for sale or purchase.

Quantity of Businesses for Disposal, the Returns of which average from £250 to £5,000 per annum.

Extensive Stock of Chemists', Surgeons', Dentists', Wholesale Druggists', and Grocers' Fixtures and Utensils, &c.

ALL KINDS OF FIXTURES OR UTENSILS BOUGHT OR TAKEN IN EXCHANGE.

SHOW-ROOMS & OFFICES:

333 KINGSLAND ROAD.

FACTORIES:

2 DOWNHAM ROAD, KINGSLAND,

AND

WHITMORE ROAD, HOXTON, LONDON, N.

BUSINESSES WANTED.

WANTED, a Small Drug Business. Apply, G. T., Bookstall, Midland Station, Nottingham.

BUSINESSES FOR DISPOSAL.

WANTED.—For Sale, a small compact Business in one of the best corner positions in Hull; price £350; owner's own premises, established several years. Apply, G. Beall, 3 Bishop Lane, Hull.

Profitable Old-established Retail Drug Business in one of the best streets in Bolton, Lancashire; incoming, £350; excellent shop and case; late Proprietor retired. Apply, Thomas Tomlinson & Son, Commercial Agents, 41 Corporation Street, Manchester.

FOR DISPOSAL, in a densely-populated neighbourhood in Wolverhampton, a good Prescribing and Mixed Retail Drug Business; returns last year (under management) over £500; rent £25; satisfactory reasons for disposal. Address, J. W. H., 52 Ludgate Hill, Birmingham.

FOR IMMEDIATE DISPOSAL, a steadily-increasing Prescribing and Retail Business; pleasantly situated in a pretty neighbourhood near London; suitable for a small capitalist. For cards to view apply to Mr. Hine Gilbert, 17 Hart Street, Bloomsbury.

FOR DISPOSAL, a good Genuine Prescribing and Dispensing Business, in a leading thoroughfare in the City of Liverpool. For full particulars apply, K. P., care of Messrs. Clay, Dod & Case, Wholesale Druggists, Liverpool.

A WHOLESALE DRUGGIST and Drysalter, established nearly 40 years in one of the largest manufacturing towns, is open to negotiate for a Partner with from £2,000 to £3,000, with a view to retire shortly if so arranged. Apply to Messrs. Thomas Tomlinson & Son, Commercial Agents, 41 Corporation Street, Manchester.

A VALUATION of Stock and Fixtures, small but profitable Business in a populous manufacturing district; no opposition; good house and shop; rent, 8s. per week; clear returns, £200; under management of lady; could easily be doubled; probable price, £70; value of fixtures could remain on for a time. 31 Chapel Street, Hyde, Cheshire.

TO BE DISPOSED OF in an improving watering-place in the Eastern Counties, with no opposition, a select Retail and Dispensing Chemist's Business; incoming about £700. For terms and particulars apply to Granville, Ridley & Co., Midway Chambers, 82 Bishopsgate Street, or 19 St. Clement's, Ipswich.

A Old-established Retail and Dispensing Business; agricultural district; Midland county; market town; population over 5,000; on a main line of railway, about 40 miles from London; splendid premises, ample warehouses, and large garden. Address, "Chemists," N., care of Messrs. Pritchard & Burton, Farringdon Road, E.C.

CHEMISTS AND SURGEONS.—The Proprietor of an Old-established Chemist's Business in the S.E. district of London is desirous of retiring; full particulars will be sent on receipt of real name and address, and satisfactory reference. E. A., care of Mr. Atkinson, 40A King William Street, E.C., London.

IMMEDIATELY.—A First-class Retail and Dispensing Business in a good country town; Proprietor having entered a larger concern is open to an offer; returns between £600 and £700 per annum; rent £50; long lease. Apply personally, or by letter, A. P. S., 16 Cambridge Street, Hyde Park Square, W.

FOR IMMEDIATE DISPOSAL.—A splendid Retail, Dispensing, and Prescribing Business, including some good proprietary articles, own manufacture, having a large sale, capable of considerable increase; capital opportunity for an enterprising person; present Proprietor going abroad; established over 30 years. Full particulars on application to James Lewis, Chemist, Merthyr.

FOR DISPOSAL in one of the most fashionable and rapidly-increasing watering-places in the South of England, a light Retail and Dispensing Business; shop handsomely fitted (by Treble & Son), well stocked, with plate-glass front; excellent position; large and convenient house; particulars to *bond fide* buyers only. Apply, Messrs. Barron, Harveys & Simpson, Giltspur Street, London.

IMMEDIATELY.—In a populous neighbourhood, near Westbourne Park, a Chemist and Druggist's Business, with good opening for Dentistry, also for a Medical man; very suitable premises and dwelling-house on lease at very low rent; returns £750; can be largely increased. Full particulars and order to view on application to Mr. W. E. Dawes, Wellington Chambers, 46 Cannon Street, London, E.C.

CHEMIST'S BUSINESS in one of the most prosperous manufacturing towns of Cheshire; two shops; total returns, 1879, £1,245 10s.; several valuable agencies and proprietorships; total rent, £103; handsome and commodious premises; large warehouse and stable; present Proprietor going into another trade; satisfactory information; price, one year's returns. Apply to Thomas Tomlinson & Son, Commercial Agents, 41 Corporation Street, Manchester.

COATED PILL and Medicated Lozenge Manufactory.—A Gentleman, having established a most promising Business, and fitted it with every modern appliance for carrying it on, not being able to work it alone, will either sell at valuation (probable amount £300 to £400), or he will take a Partner to act as Traveller with a sum of about £200; all stock, fixtures, plant, &c., new. Mr. Rutter, 5 Bonechurch Road, Ladbroke Grove Road, Notting Hill, W.

BUSINESS FOR DISPOSAL.—Light Retail and Dispensing Business (*a bond fide* concern); large market town; first-class agricultural district in the West of England; average returns over £500; rent £70; 6 years of lease unexpired; most favourably situated for the cultivation of an Agricultural Trade; commodious Dwelling-house and well-fitted Shop; centrally situated. For further particulars apply to James Milne & Co., Public Accountants, Bristol.

FOR IMMEDIATE DISPOSAL, owing to death of late Principal, an old-established, light, and Prescribing Chemist's Business, making a fair return, capable of large extension by good business man having a knowledge of Prescribing; situated in a densely-populated neighbourhood, in a leading thoroughfare of a Black Country manufacturing town of over 50,000 population; shop well fitted, very good house and business premises; terms cash; stock and fixtures at valuation, and £100 goodwill. Apply, V. F. F., Wyleys & Co., Wholesale Druggists, Coventry.

FOR DISPOSAL.—An Old-established Mixed Country Business in a good agricultural district, which has been successfully carried on by Proprietor over 12 years; established more than 40 years; now in good working order, and returning, under management, nearly £1,000 per annum, which may be greatly increased by personal attention; incoming about £400; capital House, Shop, and Premises, which may be either rented or purchased of the Proprietor who is retiring. Address, "Druggist," Messrs. A. & J. Warren, Whol sale Druggists, Bristol.

TO LET.

WAREHOUSES, noble corners, also Floors and Offices, to be Let at very moderate rentals, light, spacious, lofty, asphalted basement, and four upper floors. Apply, Mr. Boreham, on the premises, 12 Milton Street, Fore Street, Cripplegate.

PARTNERSHIP.

PARTNERSHIP or Otherwise.—A Proprietor of Specialities for Chemists wishes to meet with a gentleman to join him in further developing the business; to one having only a small capital, and accustomed to travel two or three days a week, this will be a good opportunity. Address, for interview, to "Speciality," Messrs. Deacon's, Leadenhall Street, E.C.

EMPLOYERS WANTING ASSISTANTS.

WANTED, an Improver or a Junior Assistant for a mixed trade; no Sunday work. A. E. Pride, Old Basford, Nottingham.

WANTED IMMEDIATELY, a Junior Assistant for the Mixed Trade; age about 21; no Sunday duty. Please give references, age, salary required, and when at liberty, Joseph Watts, Chemist, Attercliffe, Sheffield.

A N ASSISTANT, with Minor qualification, well up in the routine of a good country business. Apply, stating salary (out), with references, which must be good, and send carte, to R. J. J. Mays & Son, South Shields.

WANTED, a permanent indoor Assistant, immediately, able to extract teeth; an Apprentice kept; salary £1 per week. Apply, in first instance by letter, stating full particulars, with photograph, to "Fidelis," care of Mr. Leaver, 221 Golborne Road, Notting Hill, W.

WHOLESALE.—Wanted immediately, a Young Man competent for the wet or dry counter; one who has passed the Minor examination preferred. Address, Q. S., care of Messrs. Paterson & Son, Stationers, Cullum Street, stating age, salary, and last engagement.

TO COMMERCIAL TRAVELLERS calling on Chemists and Grocers in London and the Provinces.—Wanted, a Traveller for Isinglass; good commission. Address, A. B. C., care of F. Franklin & Co., 6 Great Tower Street, London, E.C., stating present engagements and district covered.

DENTAL PUPIL.

A DENTIST in large practice, holding a Hospital Appointment, has a vacancy for a pupil; a well-educated respectable Youth would be taken without a premium. Address, "Dens," Enderley, Malvern.

WANTED IMMEDIATELY, a Junior Assistant for a General Retail and Prescribing Business; one capable of being left in occasional charge; good references and recommendations indispensable. Apply, T. Clarkson, Chemist, West Hartlepool.

THE ADVERTISER requires a Young Man as Traveller; must be acquainted with the General Mixed Business of a Chemist and Druggist. Address, stating salary required, &c., T., care of Messrs. Symes & Co., Hardman Street, Liverpool.

WANTED, the beginning of next month, an Assistant to take the management of a branch shop, and to assist in the other; one that can extract teeth; good references; state salary, height, and age. M., 31 Butcher Street, Portsea, Hants.

ASSISTANTS WANTING SITUATIONS.

TEMPORARY, or otherwise; terms moderate. P. W., 51 Grantley Street, Grantham.

ASSISTANT to Chemist or Surgeon; out-door. H., Victoria Villas, Southern Road, Basingstoke.

A S OUT-DOOR ASSISTANT or Manager; aged 30; married; 12 years' experience; good reference. "Dentist," Disraeli Villa, Abergyle.

MR. A. K. TAYLOR, Temporary Manager, Removed to 31 Crane Grove, Highbury, N. Terms, &c., as before.

A S ASSISTANT (out-door); wholesale or retail, or to manage a branch; good general experience; not afraid of work; good references; age 25. G. W., care of S. Daniel, Pharmaceutical Chemist, Ransgate.

A S ASSISTANT, or Manager of a Branch; out-door preferred; 13 years' experience in mixed country businesses; can prescribe and extract teeth. J. H. Bycroft, Belleau, Alford.

A S JUNIOR, in good Dispensing establishment; passed Preliminary; over 2 years' experience; time required for study; good home more object than salary. Laffere, Hatherleigh.

LOCUM TENENS, or Temporary, by the day, week, &c.; registered chemist and dentist; references forwarded; usual terms; town or country; long and varied experience. J. W. Lomas, 1 Jasmine Villas, Heber Road, Lordship Lane, S.E. Disengaged 21st inst.

TRAVELLER or SALESMAN.—Advertiser, having first-class Recipes for Horse and Cattle Medicines, Toilet Requisites, &c., given him by his past employer, the late C. V. Wilcockson, of 27 Long Row, Market Place, Nottingham, is desirous of an Engagement where the above could be made the medium of an increasing trade; undeniable references. Address, "Pharmacy," 83 Fleet Street, London, E.C.

FOR ABROAD.

WANTED by the Advertiser, whose engagement with a leading house in Ceylon terminated on the 31st May, a Situation as Dispenser or General Assistant in a good house abroad; India or China preferred. For full particulars, apply "Chemicus," care of Messrs. Geo. Curling & Co., 30 St. Mary Axe, E.C.

MISCELLANEOUS.

By order of the Executors of the late William Mather.—To Merchants, Warehousemen, Druggists' Sundriesmen, and others. Corner of Farringdon Road and Cross Street. Highly important, modern, substantial stone and brick built Freehold Warehouse Property, occupying one of the finest sites in this desirable and rapidly-improving locality.

MESSRS. TATHAM are instructed to **SELL** by AUCTION, at the MART, Tokenhouse Yard, Bank, on MONDAY, June 23, this magnificent pile of BUILDINGS, occupying a very prominent position at the corner of Farringdon Road and Cross Street, to both of which thoroughfares the property has very extensive frontages. The premises, which will be sold with possession, consist of a spacious basement, ground, and three upper floors, all of which are lofty and exceedingly well lighted, and contain a total floor space of 17,750 square feet; they were especially built for carrying on the business of a druggists' sundriesman, but are suitable for many different trades.—Particulars and plans are now preparing, and in due time may be had of Messrs. Bullock & Worthington, solicitors, Manchester; Messrs. Chester, Mayhew, Holden & Broome, Staples Inn, W.C.; and of Messrs. Tatham, Auctioneers and Surveyors, 34 Essex Street, Strand.

TO INDIAN AND COLONIAL CHEMISTS.

A Pharmacist of extensive experience in the Wholesale and Retail Trades, with a thorough knowledge of the best markets for the multifarious requirements of Colonial Traders, and able to give prompt and personal attention to every item, will be glad to ship additional indents at a commission of 2½ per cent., and all disbursements. Draft against documents, with approved London references. References to well-known firms at home and clients abroad, on application to "Exporter," Millington & Hutton, Budge Row, London, E.C.

JAMES C. CHUBB

CONTINUES TO SUPPLY

BEST SEIDLITZ POWDERS,

Loose, at 7s. per gross, and in boxes at 8s., 9s., and 10s. per doz.; Extra-scented Violet Powder, prepared with wheaten starch, in 1d. boxes, 7s. per gross, 2d. boxes, 14s. per gross, 1-lb. packets, 2s. 6d. per doz.; Prepared Fuller's Earth, in 1d. boxes, 7s. per gross, 2d. boxes, 14s. per gross, and 1-lb. boxes, 2s. per doz., through the Wholesale Houses, or from 29 OLD STREET, LONDON, E.C.; and will forward list of articles packed by him on application.

WANTED,

A URINE,

Of Deep Red (not Yellow) Shade.

Offers and Samples to be addressed to

R. T. 137, care of Messrs. G. L. DAUBE & CO.
FRANKFORT-ON-THE-MAINE.

NOTICE OF REMOVAL

Messrs. Hodgkinsons, Stead & Treacher

Beg to inform their friends and the Trade generally that they have taken as

TEMPORARY PREMISES,
No. 74 Golden Lane, E.C.

To which address they request all orders, goods, &c., may be sent.

FIELD'S LIQUOR TARAXACI

Concentrated IN VACUO to a strength double that of the Succus Taraxaci of the Pharmacopœia.

The process by which this preparation is manufactured entirely excludes the injurious effects of Heat, Oxidation, and Fermentation. The active constituents remain quite uninjured; and, owing to the great care with which any incipient change is guarded against during the manufacture, this preparation **KEEPS PERFECTLY**, whilst the expressed Juice of the British Pharmacopœia, although containing 25 per cent. of Rectified Spirit, quickly becomes mawkishly sweet, through the conversion of its active constituents into inert saccharine matter.

Price 4/ per lb.

W. Qts. 3/10

FIELD'S LIQUOR CINCHONÆ CORDIFOLIÆ

This well-known preparation contains the whole of the active ingredients of Bark, and is manufactured with great care by a process specially devised for that purpose. It is made from the best bark, and will be found a great desideratum to Druggists and Medical Men, as it furnishes a ready means of at once preparing Decoction of Bark quite equal to that made from fresh Bark.

Thirty minims of this Preparation, diluted to an ounce (with distilled water), forms the Decoction Cinchonæ Flavæ of the Pharmacopœia.

Price 10/ per lb.

LIQUOR CINCHONÆ RUB.

1 fl. oz. equal to 1 oz. of Best Red Bark.

Price 10/ per lb.

This preparation is made from the very finest *Red Bark*, and is guaranteed to contain a high percentage of Alkaloids as well as the natural Acids of the Bark.

It is of considerable use as a remedial agent in chronic intemperance, and is prescribed for that purpose by several of the London physicians.

Messrs. CLEAVER & Co. beg to call special attention to the following preparations. They may be depended upon for being made only from best drugs, and will keep for any length of time without formation of unsightly deposits.

Inf. Rosæ Acid. Conc.	...	...	2/6 per lb.	Ext. Ergotæ Liq.	...	...	...	4/6 per lb.
, Gentian. Co. Conc.	...	...	1/6 "	, Sarsæ. "	...	...	...	9/6 "
, Senegæ "	...	...	3/- "	, " Specially purified from all	...	...	...	12/- "
, Buchu "	...	...	1/6 "	mucilaginous matter	...	...	...	2/8 "
Dec. Sarsæ. Co. Conc.	...	...	4/- "	, Glycyrrhizæ Liq.	...	...	...	2/- "
, Aloes " "	...	...	4/6 "	Succ. Taraxaci, B.P. ...	...	...	...	2/- "
Inf. Sennæ, warranted very active	1/6 "	|	Liq. Sennæ Dulc.	...	...	...	...	2/6 "

Special attention is called to these preparations of Senna which are made entirely from Alexandrian Senna.

Can be obtained of all Wholesale Houses, or direct from the Manufacturers,

CLEAVER & CO.

(Late J. J. Field.)

WHOLESALE PHARMACEUTICAL CHEMISTS,
PAULTON SQUARE, KING'S ROAD, CHELSEA.

SPECIALTE:—Concentrated Infusions, Liquid Extracts, &c., prepared in vacuo from selected drugs only, at prices same as charged by all Wholesale Houses.

MEDAL,



PARIS, 1878.

THE

Tin-Plate Decorating Co.,

MANUFACTURERS OF THE NEW

CRYSTALLIZED TIN BOXES,

FOR TOILET AND OTHER PURPOSES.

GOLD MEDAL,



SYDNEY, 1879.

SEAMLESS DECORATED TIN BOXES

Suitable for Blacking, Polishing Paste, Tooth Powder, Pomade, Pills, Lozenges, &c.

DECORATED TIN CANISTERS,

For Disinfectant Powder, Baking Powder, &c., &c., &c.

Samples and Prices will be forwarded on application on receipt of full particulars.

WORKS: NEATH, SOUTH WALES.

1/6 JUDSON'S 1 6 GOLD PAINT.

{ 1 Bottle Gold Powder	}	12s. per dozen sets. Six sets on a card, or each set in card box.
1 " Mixing Liquid		
1 Mixing Bowl		
1 Brush		

{ 1 Bottle Gold Paint	}	10s. 6d. per doz. sets. Six sets on a card, or each set in card box.
1 " Mixing Liquid		

For regilding picture and glass frames.
For gilding lamp stands and gas-fittings.
For renewing ormolu ornaments.
For illuminating on paper, silk, or leather.
For artistic cabinet work.
And for a thousand useful and domestic purposes.

H. BESSEMER'S GOLD PAINT,

RETAIL PRICES:—

Small Bottles of Gold with Liquid	1s. 6d.
Medium " " & Bowl & Brush	2s. 6d.
Large Bottles of Gold	3s. 6d.
" " Liquid	0s. 6d.

To be obtained of all Chemists, Artists' Colourmen, and Druggists' Sundriesmen.

NEW 1/6 & 2/6 PACKETS.

CONTENTS:—1 Bottle Gold Powder, 1 Bottle Mixing Liquid, 1 Mixing Bowl, 1 Brush, in Cardboard Box.

Where the Bowl and Brush are not required, the usual 1/6 Packet should be purchased, as it contains a large quantity of both Gold and Liquid.

A COPPER AND SILVER PAINT, AT THE SAME PRICES, AND YIELDING EQUALLY GOOD RESULTS, CAN BE OBTAINED.

SOLE PROPRIETOR AND MANUFACTURER,

RICHARD J. ALLEN,
MANSFIELD PLACE, KENTISH TOWN,
LONDON, N.W.

If Translations are supplied, Circulars, Cards, or Labels will be printed in any language necessary for its sale.

Dr. C. R. Coffin's AMERICAN DENTIFRICE

Prepared only by WILLIAM DARLING, Chemist, Manchester May be had from S. Maw, Son, & Thompson; Barclay & Son; F. Newbery & Sons; Sanger & Sons; and any Wholesale House in London. Price 2s. per Box, and Family Jars 1 each.

OKELL'S ORIGINAL MONA BOUQUET

Retail, 1/, 1/9, and 3/6; Wholesale, 9/, 15/, and 30/ per doz. This much-admired Perfume (prepared by the Widow of the late Joseph Okell), may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers. Applications for WHOLESALE Agencies to be made to the Sole CONSIGNEE, THOMAS WEST, Chemist, Stretford, Manchester.

Goddard's Plate Powder

For more than a Quarter of a Century this Powder has sustained unrivalled reputation throughout the United Kingdom and the Colonies the BEST and SAFEST article for Cleaning.

Sold in Boxes, 1s., 2s. 6d., and 4s. 6d. each. Also

GODDARD'S FURNITURE CREAM

Sold by all Patent Medicine Houses and Wholesale Druggists, Manufactured by J. GODDARD, Station St., Leicester.

FOR CLEANING PLATE

**BRADLEY & BOURDAS'S
ALBATUM or WHITE ROUGH**

For Cleaning Gold, Silver, and Plated Goods.

Since its introduction as a substitute for the ordinary Rouge, a quarter of a century ago, the sale has amazingly increased both at home and abroad. A trial is only needed to prove superiority over other plate powders in use. Sold in Boxes 1s. and 2s.; Tins, 6s. 7 Pont Street, Belgrave Square, and 48 Belgrave Road, London, S.W.

SPONGES.

SEASON 1880.

IN ORIGINAL PACKAGES.

Cases Free. Quotations subject to usual Terms.

No.	Description.	Number of Pieces per Case.	Price per Case.
1	Honeycomb, Selected quality assorted sizes	90	£ 14 5 0
2	" " " " " "	75	10 18 0
3	" " " " " "	65	7 14 0
4	" " " " " "	63	5 16 0
5	" " " " " "	70	4 12 0
6	" " " " " "	70	3 12 0
7	" " " " " "	100	2 12 0
8	" " " " " "	18	6 18 0
9	" " " " " "	18	4 15 0
10	" " " " " "	18	2 14 0
11	" " " " " "	200	3 10 0
12	" " " " " "	200	1 14 0
13	Turkey, Cups, First " " " " " bath sizes	40	14 15 0
14	" " " " " " " " " "	40	11 10 0
15	" " " " " " " " " "	70	17 18 0
16	" " " " " " " " " "	70	14 15 0
17	" " " " " " " " " "	70	10 18 0
18	" " " " " " " " " "	70	7 7 0
19	" " " " " " " " " "	190	9 18 0
20	" " " " " " " " " "	200	7 15 0
21	" " " " " " " " " "	150	10 10 0
22	" " " " " " " " " "	100	5 6 0
23	" " " " " " " " " "	200	7 17 0
24	" " " " " " " " " "	170	3 18 0
25	" " " " " " " " " "	175	3 17 0

SELECTED SPONGES.

Honeycomb	per lb.	6/0, 8/0, 10/0, 12/0 and 0	£ 15 0
" " Small	per lb.	4/0 and 0	6 0
Turkey, Cup, for the Bath, from 3 to 6 to the lb.	per lb.	30/0, 38/0 and 2	5 0
" " " " for the Toilet, from 8 to 18 to the lb.	"	30/0, 35/0 and 2	0 0
" " " " " " fine, from 8 to 18 to the lb.	"	45/0, 50/0 and 3	0 0
" " " " " " for the Nursery, from 25 to 40 to the lb.	"	20/0, 25/0 and 1	10 0
" " Eye	"	12/0, 16/0 and 1	0 0
" " Solid, for the Nursery, from 25 to 40 to the lb.	"	12/0, 16/0 and 1	0 0
" " " " for the Toilet, from 6 to 18 to the lb.	per lb.	12/0, 16/0, 20/0 and 1	5 0
" " Rough, suitable for Slates, &c.	per lb.	4/0, 6/0 and 0	8 0
" " Carriage	per lb.	8/0, 12/0, 16/0 and 1	0 0
" " " " brown	per lb.	4/0, 6/0 and 0	8 0

S. MAW, SON & THOMPSON,

7 to 12 ALDERSGATE STREET, LONDON.

WOODS' ARECA NUT TOOTH PASTE.

For Removing Tartar and Whiteness the Teeth, without injuring the Enamel. Sold in Pots, at 6d. and 1s. each.

WOODS'**QUININE, CANTHARIDINE, & ROSEMARY HAIR CREAM**

(WITH GREASE), Restores the Hair if weak or falling off.
Price 9d., 1s. 6d. and 3s. 6d. per bottle.

WOODS'**QUININE, CANTHARIDINE, & ROSEMARY HAIR WASH**

Similar to the above (without grease). Price 1s. 6d. and 3s. 6d. per bottle.

WOODS' DANDRUFF POMADE.

Never fails. 1s. per pot.

Proprietor: W. WOODS, M.P.S., Chemist, Plymouth.

SOLD WHOLESALE BY ALL LONDON HOUSES.

AWARDS:
London and
Vienna
Exhibitions

Wood Stains,

AWARD
London &
Vienna
Exhibitions

IN LIQUID AND POWDER.

Packed in 1-lb., ½-lb., ¼-lb., and 2-oz. Boxes, ½-pint 6d. Bottl and bulk.

Specimen Boards and Circulars supplied when ordered.

MANUFACTURER,

THOMAS S. JACKSON

199 BOROUGH, LONDON, S.E.,

And of all Patent Medicine Warehousemen. Write for N Price Lists of Oil and Spirit Varnishes, Colours, Paints, &c

ROUND AND OVAL CHIP AND WILLOW BOXES

Of any Size, in the very Best Quality that can possibly be made.

Guaranteed far better and cheaper than any other make, and WARRANTED TO STAND ALL CLIMATE. LARGE STOCK KEPT IN LONDON.

Every large buyer of these goods should compare my samples and prices before ordering elsewhere. Please observe my REGISTERED TRADE MARK, and see that every parcel bears the same on the LABEL AS GUARANTEE, as for obvious reasons many bad foreign productions are being brought into the market.

PAUL METZ, 217 Upper Thames Street, London, E.C.

BEST GERMAN SASH TOOLS,

Grey and Red String Tied, of Excellent Quality, at very Low Prices.

Thermometers, Hydrometers, and Chemical Glass Apparatus in large variety. Illustrated Price Lists will be sent on application.

EWENS' CLARIFIED LARD, MARROW, SUETS, AND OILS.

JAMES EWEN & SONS are induced to give further publicity to these articles, the continued demand by all who have used them being satisfactory proof "that where purity of basis" in ointments, &c., is required, they are most desirable.

By their method of purifying, the fats are not chemically altered, but simply divested of all particles tending to decomposition, they are consequently available for the most delicate preparations.

Adeps. Benz. B. P. and Pharm. Lard (vide P. J. Vol. I., No. 8). Direct, "for Cash only," from

JAMES EWEN & SONS' CLARIFIED FAT WORKS,
5 HATFIELD STREET, STAMFORD STREET, S.E.;

Or through any of the Wholesale Houses, with their usual credit, at a small advance.

CAUTION.—See that each package bears their label with name and weight.

Re-
Worn Ivory Brushes Refilled and polished to look Equal to New.

IVORY HAIR BRUSHES

Mirrors & all other Ivory Toilet Articles,

**IVORY GOODS IN GENERAL,**

Wholesale & for Exportation & the Trade only.



AT HENNIG BROS. Ivory Works,
11, HIGH STREET, LONDON, W.C.

Illustrations and Powder Boxes, &c., Post free.

**ROYAL "TABULA RASA,"**

THE "PERFECT" CONSOLIDATED DENTIFRICE.

NOTICE.—This highly-commended Preparation may now be had from the Wholesale Houses or direct from the Manufactory—

166 BISHOPSGATE STREET WITHOUT, LONDON, E.C.

SAMPLE ORDERS SOLICITED. SHOWCARDS, HANDBILLS, &c., SUPPLIED.

Agents and Travellers wanted where not represented.

BEST VEGETABLE PARCHMENT

For Covering Jars, Wrapping up Soap, Chemicals, Explosives, &c.

FANCY PAPER, TINFOIL, AND TINFOIL PAPER.

Samples and Prices post free on application.

E. BECKER & CO.,

30 Little Trinity Lane, Queen Victoria Street, London, E.C.

**TRY IT!
SPANISH**

In Bottles,

Unrivalled for RESTORING HAIR, RENEWING, CLEANSING, THICKENING, and PREVENTING the Hair

Of Messrs. Low & Haydon, 330 Strand, London; Barclay & So 95 Farringdon Street, London; of any Chemist or Hairdresser; or A. P. Muddiman, Leighton Buzzard, Beds.

**IT NEVER FAILS
WASH!!**

2/6 & 5/- each.

from FALLING OFF or Turning Grey, instantly removing all Scurf or Dandruff, leaving the skin pure and healthy.

SPRING AND SUMMER GOODS.

CRAWSHAW'S CRYSTAL DYES.

d. BOXES CRAWSHAW'S CRYSTAL DYES In $\frac{1}{2}$ gross (7 doz.) Counter Case with Glass Lid.	48/- per gross.
d. BOXES CRAWSHAW'S CRYSTAL DYES In Boxes of 1 doz. (14).	48/- per gross.
d. PACKETS CRAWSHAW'S USEFUL DYES In $\frac{1}{2}$ gross Cardboard Boxes.	21/- per gross.
d. PACKETS CRAWSHAW'S USEFUL DYES Mounted on Cards of $\frac{1}{2}$ gross.	21/- per gross.
d. PACKETS CRAWSHAW'S USEFUL DYES In $\frac{1}{2}$ gross Cardboard Boxes.	14/- per gross.

2d. PACKETS CRAWSHAW'S USEFUL DYES Mounted on Cards of $\frac{1}{2}$ gross.	14/- per gross.
1d. PACKETS CRAWSHAW'S USEFUL DYES In 3 gross Counter Case with Glass Lid.	7/- per gross.
1d. PACKETS CRAWSHAW'S USEFUL DYES In $\frac{1}{2}$ gross Cardboard Boxes.	7/- per gross.
1d. PACKETS CRAWSHAW'S USEFUL DYES Mounted on $\frac{1}{2}$ gross Cards.	7/- per gross.

THE EXCELSIOR PENNY DYES. Mounted on Cards of $\frac{1}{2}$ gross each. These Dyes are good value for the money; suitable for low class Wholesale Trade, and where Cheap Goods are required. There is no Maker's Name on the Packets or Cards.

5 6 per gross.

d. PACKETS CRAWSHAW'S PERFECT BLACK DYE In $\frac{1}{2}$ gross Wood Boxes.	48/- per gross.
---	--------------------

d. PACKETS CRAWSHAW'S PERFECT BLACK DYE In $\frac{1}{2}$ gross Wood Boxes.	21/- per gross.
---	--------------------

CRAWSHAW'S SILVER PLATING SOLUTION.

New Preparation for producing a thin coating of Pure Silver on Brass, Copper, and other Metals, and for re-silvering worn articles of Electro Plate.
1/- Boxes, Mounted on Cards of $\frac{1}{2}$ doz., 9/- per doz.

CRAWSHAW'S INSECT POWDER

For Destroying Beetles, Crickets, Moths, Green Fly, Fleas, Bugs, Lice, Cockroaches, &c.

d. TINS CRAWSHAW'S INSECT POWDER In 3 doz. Wood Boxes.	48/- per gross.
d. BOXES CRAWSHAW'S INSECT POWDER In $\frac{1}{2}$ gross Wood Boxes.	21/- per gross.
1d. BOXES CRAWSHAW'S INSECT POWDER In 1 Gross Wood Boxes.	7/- per gross.
1d. BOXES CRAWSHAW'S INSECT POWDER Mounted on Cards of $\frac{1}{2}$ gross.	7/- per gross.

d. BOXES CRAWSHAW'S BEETLE POWDER	21/- per gross.
--	--------------------

MAY BE HAD FROM ALL THE WHOLESALE HOUSES.

E. CRAWSHAW & CO., 80 Fann Street, Aldersgate Street, LONDON, E.C.

GREENSILL'S FAR-FAMED MONA BOUQUET

THE ORIGINAL AND ONLY GENUINE.

great popularity of this exquisite Perfume is a proof of its excellence and superior qualities.

S. GREENSILL, Chemist, Douglas, Isle of Man,
Inventor, Proprietor, and Maker.

AGENTS—LONDON: Sanger; Maw; Edwards; Newbery; Mather; Play; Whittaker & Grossmith; Hovenden; Parton & Osborne; Butler; Rispe; Tidman & Son; Barron & Squire; Wright, Layman & Umney; J. Thompson; Burgoyne, Burbridge & Co.; Grimwade, Ridley & Co.; S. Brothers. LIVERPOOL: Evans, Sons & Co.; Clay, Dod & Case; Sumner & Co.; Ralms & Co. MANCHESTER: J. Woolley; Lynch & Egan; Jewsbury & Brown; Mather. EDINBURGH: Duncan & Flock; DUBLIN: M. Master; Hodgson. YORK: Sutcliffe & Headley; K. Bleasdale. THIRSK: Wm. Foggatt. BRISTOL: Ferris & Co. Agents for CALCUTTA: Smith, Stanistreet & Co. MONTREAL: Sugden, and Co. NEW ZEALAND: Kempthorne, Prosser & Co. MELBOURNE: Grimwade, Ridley & Co.

Introduced in 1852.

Registered Trade Mark—"Tower of Refuge, Douglas Bay."

THE MOST PROFITABLE BRAND.

AU DE COLOGNE

OF THE
NUN

MARIA CLEMENTINE MARTIN,
POSITIVE THE CATHEDRAL, COLOGNE.

SOLE AGENT FOR THE UNITED KINGDOM—

ARTHUR I. JOSEPH, St. Leonard's-on-Sea.

PRICE LIST.—Duty paid, net. In bond.

2 oz. shorts, Eau de Cologne	8/-	5/-
4 oz. " " " "	15/-	10/-
4 oz. " " " wickered	20/-	15/-
Half-pints " " " "	25/-	17/8
Pints " " " "	50/-	34/6
Quarts " " " "	100/-	69/-

Small Cases assorted to order (of not less than 3l. value in bond) delivered freight to London, less 7½ per cent. discount. May be obtained on these terms of any Wholesale House, or at the London Depot—

14 Australian Avenue. H. C. MASON, Agent.



Erhardt & Co.

9, Bond Court, WALBROOK,
LONDON, E.C.

Manufacturers of * * * * *

Patent Parchment,

SOFT ELASTIC, White or Coloured, for tying over Drugs, Preserves, &c., CAPPING and CORKING Bottles of Chemicals, &c., &c.

White Split Skins,

Best quality only, for CAPPING Bottles, from 7/6 to 20/- per doz. Also Coloured Splits.

Transparent Skins,

In different qualities, for CAPPING Bottles.

Tinfoil,

Chemically Pure, and Polished made in any thickness from 15 to 90 square feet to the lb. Also Mixed Foil, Coloured and Gold Foil, plain or embossed.

Metallic Capsules.

Also Tinfoil Papers, Gold, Silver, Fancy or Capping Papers, as used by Chemists, &c., &c. Capsuling Machines 35/- each.

Field & Tuer, ye Leadenhall Press, London, E.C. 72, 708.

PHOENIX ESTABLISHED A.D. 1815 **MARKING INK**
 GENUINE INDELIBLE

THE LEADING & STANDARD ARTICLE
 PREPARED ONLY BY THE WIDOW OF THE LATE
JOHN MURPHY
 CHEMIST AT THE ORIGINAL ESTABLISHMENT
 11, NILE STREET, EAST ROAD, HOXTON, N.

THE ORIGINAL
 TRADE MARK.
 Estab^d 1815.

NO OTHER ADDRESS - BEWARE OF WORTHLESS IMITATIONS.

GOLDEN HAIR. ROBARE'S AUREOLINE

Produces, by two or three applications, the beautiful golden colour so much admired.

WARRANTED PERFECTLY HARMLESS.

Price, 5s. 6d. and 10s. 6d., of all Perfumers and Chemists.

WHOLESALE—R. HOVENDEN & SONS, 5 Great Marlborough Street, W., and 93 and 95 City Road, E.C., London; PINAUD & MEYER, Boul de Strasbourg 37, Paris; 31 Graben, Vienna; 44 Rue des Longs Chariots, Brussels.

SPECIAL NOTICE TO THE TRADE! REDUCTION IN WHOLESALE PRICE!

Write for Terms, &c.



SEND FOR A BOTTLE AS IT IS GUARANTEED TO EFFECT THE MARVELLOUS CHANGE IN A FEW WEEKS



Agents Wanted Everywhere.

SAVILLE'S CAPILLARY GERMINATOR

Is now being supplied to the trade at greatly reduced prices.

Particulars on application.
 Acknowledged by the Press and the Public to be the only REAL producer of WHISKERS AND MOUSTACHES AND CURE OF BALDNESS. Hundreds of private Testimonials. Price 2/- per bottle; larger sizes, 4/-, 8/-, and 11/-. New Circulars and Show Cards just ready, liberally supplied with every order. Always in stock at all the principal Wholesale, Export, and Shipping Houses, or may be obtained direct from the Sole Proprietor and Manufacturer, **JOHN T. SAVILLE, 146 Regent's Park Road, London, N.W.** CAUTION!—As a natural result numerous imitations are springing up. Note that all our bottles are in blue wrapped boxes, and bear above title (registered) impressed in the glass.

WHITE FELT CORN AND BUNION PLASTERS.

SOLPORT BROTHERS, 68 Shaftesbury St., New North Road, LONDON, N.
 ESTABLISHED 23 YEARS.

SOLPORT BROTHERS are the ORIGINAL MANUFACTURERS of the only genuine White Felt Corn and Bunion Plasters. WHOLESALE ONLY.

WHITE FELT CORN PLASTERS.

One gross, post free, Sixteen Stamps.

Higginson's Enemas, India-rubber Teats, Tubing, Gutta Percha Tissue Washing Gloves, Sealing Wax, Proprietary Articles, &c.
Special Reduced Prices to Cash buyers (Chemists only) post free on receipt of Trade Card.

JOHN CENTRETON,
 103 Murray Street, New North Road, London, N.

TRADE MARK



REGISTERED—No. 3745. P. A. S. is prepared to supply the above to Wholesale Houses and Chemists, in any quantity, with their name stamped up each stick, cut any length.

To be obtained of all Wholesale Houses. Price List and Samples sent post free Special Terms to Shippers.

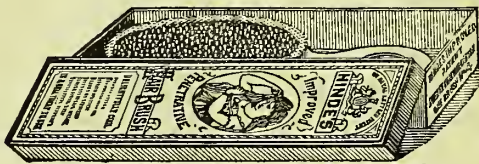
SPECIAL NOTICE.—The words SILVERY WHITE GUTTA PERCHA ENAMEL are registered as a Trade Mark, and will be protected.

P. A. STEVENS, CHEMIST AND DENTIST, 70 HYDE ROAD, HOXTON, LONDON, N., Sole Proprietor and Maker of the SILVERY WHITE GUTTA PERCHA ENAMEL for Stopping Decayed Teeth.

HINDE'S PATENT WIRE HAIR BRUSH

Silvered Wires and Rings of Bristle.

Admittedly the only perfect Wire Brush in the market. Made in a variety of prices and patterns. Beware of other Wire Brushes



EACH BRUSH PACKED IN A SEPARATE BOX.

Patronised by H.R.H. the Prince of Wales; H.I.H. the late Louis Napoleon; the Rt. Hon. W. E. Gladstone, M.

CHEAPER AND MORE DURABLE THAN BRISTLE; PLATED WIRES, AND WILL NOT SCRATCH.

To be had of all Important Wholesale Houses in London, Birmingham, Manchester, and Glasgow.

which, with TINNED Wires, claiming the speciality of the "Silvered Wire Brush," with its value and advantages.

COPYRIGHT—ORIGINAL— AND ONLY GENUINE.

WHITAKER & GROSSMITH'S PURE WHITE GLYCERINE SOAP.

Richly perfumed, and guaranteed to contain the necessary quantity of GLYCERINE for effectually imparting to the SKIN the softening and healing properties for which it is so justly famed. 1s. 6d. Boxes of Three Tablets, 12s. per Dozen Boxes.

SELECT TOILET PREPARATIONS, extensively increasing in demand, which attests their excellent quality.

TOILET SOAPS. Per doz.		BOUQUETS. Per doz.		POMADES, &c. Per doz.	
Cent-Fleur (copyright)	2/6 Boxes of 3 tablets 20/	Cent-Fleur (copyright)		Cent-Fleur (copyright)	... 8/ 12/ & 20
Jockey Club	" 1/6 " 12/	Star of India	... In Glass	Petroleum Pomade	... 12/ & 18
Sandringham	" 1/6 " 12/6	White Lilac	... Stopped	Brilliantine	... 8/ 12/ & 20
Eucalyptus Oil	" 1/6 " 12/	Birthday	... or	Anglo Eau de Cologne	... 8/ & 12
Wild Thyme (Thymol)	1/ " 8/	Hawthorn	... Sprinkling	Eucalyptus Vinegar	... 12/ & 20
Semi-Cut Bars	" 1/ Bars of 6 kinds 8/6	White Violet (and 50 others)	... cap Bottles.	White Cherry Tooth Paste	8/ & 12

Trade Price Lists sent and Orders executed through Wholesale Houses, or direct from the Manufacturers,

WHITAKER & GROSSMITH, Wholesale Perfumers, 120 Fore Street, City, London.

ROUND AND OVAL CHIP AND WILLOW BOXES, ROUND, OVAL, AND SQUARE CARDBOARD BOXES

Guaranteed our own Manufacture.

ORDERS EXECUTED PROMPTLY, AT VERY CHEAP RATES, FOR HOME AND EXPORT.

AYRTON & SAUNDERS

149 & 153 DUKE STREET, LIVERPOOL.

BURROUGH'S

SPIRITUS RECTIFICATUS, P.B.

CHEMICALLY PURE SPIRITS OF WINE

The Best English Grain Spirit, Free from Fusel Oil.

56 over proof, 20s. per gallon; 60 over proof, 20s. 6d. per gallon; less 6d. per gallon for five gallons. Lower quotations for quantities Cash on delivery or with order. Country Orders must contain remittance or reference to London House

CALE STREET DISTILLERY, LONDON, S.W.

Also Duty Free for Exportation.

THE UNIVERSAL TOOTHACHE SYRINGE

Retail,
6d. each.



Wholesale
4s. per dozen

Is a great improvement upon the "DENTAL SYRINGE," as the fluid is contained in a glass bulb, which enables its contents to be seen, also prevents liability to evaporation through long keeping or exposure.

THE UNIVERSAL CORN AND WART PENCIL.

1 doz. mounted on a handsome Illustrated Show-Card, Retail, 6d. each; Wholesale, 3s. 6d. per doz. It is especially adapted for Export Trade, and may be safely sent to the hottest climates, as each glass tube is hermetically sealed and enclosed in a cardboard case.

N.B.—Both the above are exempt from Stamp Duty by permission of the Board of Inland Revenue.

CONCENTRATED WATERS.—One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopoeia, and free from all Chemical impurity. They are prepared to supply a want long felt by Chemists and Medical Men, and by their fresh supply of any of the Medicinal Waters may be obtained at a moment's notice. They are not affected by age in any climate. N.B.—Used in proportion of one part to thirty-two of water they represent the Medicinal Waters of the United States Pharmacopoeia.



Per lb.	Per lb.	Per lb.	Per lb.				
Aqua Anethi, Concent.	4/0	Aqua Cinnam. Ver. Concent.	6/0	Aqua Fœniculi, Concent.	4/0	Aqua Pimentæ, Concent.	Pe
" Anisi, "	4/0	" Cassia, "	4/0	" Menth Pip. "	4/0	" Rosæ "	"
" Camphoræ, "	4/0	" Flor. Aurant. "	8/6	" Ang. Con. "	6/0	" Rosæ Virgin "	"
" Carui, "	4/0	" Flor. Samhucl, "	8/6	" Virid. "	4/0		

The above are put up in Bottles of 1/4 lb. or 1 lb. and upwards. each of which has the Inventor's Protection Label over the Wholesale Agents—Hearon & Co., Maw, Son, & Thompson, Lynch & Co., London; Evans, Sons & Co., R. Liverpool; Mather, Woolley, Manchester; Bewley & Draper, Dublin; Glasgow Apothecaries' Co., Hatrick & Co., Glasgow; Foggitt, Thirsk; Goodall & Co., Leeds; Clarke, Bleasdale & Co., York; McKesson & Robbins, New York. Special

for large quantities may be had from

B. ROBINSON, Operative Chemist, Distiller and Brewer of British Wines, Manchester

ESTABLISHED 100 YEARS.

TOILET AND FANCY SOAPS
OF EVERY DESCRIPTION.

CHOICE PERFUMES IN BULK.

1 extra 12/ per pint of 20 ozs.
 1 9/6 " "
 2 8/ " "
 up also in great variety of size, style, and price.

SOAPS.

Sulphur, Petroleum, &c., 6d. & 1/
 pine, Juniper Tar, &c., 4/ & 8/
 Medicated Soaps .. doz.
 Marine Jelly, 6d. and 1/
 scented bts., 4/ & 8/
 oz.

MANUFACTURERS,

T. F. BRISTOW & CO.
 TOILET SOAPS & PERFUMERY.

PRICE LISTS
ON APPLICATION.BRISTOW'S
SPECIALITIES.

Carbolic Acid Soap, In boxes 3 tblts.
 Glycerine and Carbolic Acid .. 1/ & 1/6
 Glycerine and Oatmeal Soap .. 8/ & 12/ per dz.
 Baby Soap for Nursery use (In bxs. 4 & 12 tblts.
 (Illustrated Label) 9/ and 27/ per doz.
 Family Soap, in bxs, 4 & 12 tblts (1/ & 2/9) 8/ & 24/ "
 Cold Cream Soap, in bxs., 3 tbs. in bx (1/6 & 2/6) 12/ & 21/ "
 Stockholm Tar Soap in boxes, 3 tablets in box (1/6) 12/ "
 Pure Coal Tar Soap 1 in 4d., 6d. & 8d. tblts. in 3 doz. bxs, 2/6, 3/6, 4/6 doz.
 Transparent Soap, in boxes 3 tablets (1/ and 1/6) 8/ & 12/ "
 Superior Lavender Soap, in boxes, 3 tablets (1/ and 1/6) 8/ & 12/ "
 White Glycerine Soap, in boxes, 3 tablets (1/6) 12/ "
 Dog Soap (Illust. Wrapper), Carpet & Cloth Soap, Pumice Stone Soap (6d. & 1/) .. 3/6 & 7/ doz.

5 BISHOPSGATE AVENUE, LONDON.

SPECIAL PRICE LIST OF MEDICAL and other GLASS BOTTLES,
 MANUFACTURED BY JONAS & JULES LANG,
 13 Charterhouse Buildings, Aldersgate St., London, E.C., & 28 Rue Notre Dame de Nazareth, Paris.

(TERMS—CASH.)

WHITE GLASS VIALS, Long, Medium, or Short
 Series— $\frac{1}{2}$ 1 2dr. $\frac{1}{2}$ 1 1 $\frac{1}{2}$ 2 3 4oz.
 2/8 2/8 3/ 3/3 3/6 4/3 5/3 6/3 7/3 gr.

Stopped—15/ 15/ 15/ 17/ 18/ 18/ 19/ 22/ 24/ "
 ROUND SHOULDER VIALS, for Lime Juice and
 Glycerine—

$\frac{1}{2}$ 1 1 $\frac{1}{2}$ 2 3 4 6 8 10 12 16 20oz.
 3/3 3/6 4/3 5/3 6/3 7/ 8/ 11/ 15/ 18/ 20/ 23/ gr.

Stop'd—17/ 18/ 18/ 19/ 22/ 24/ 30/ 36/ 36/ 48/ 48/ "
 BEST WHITE FLINT OVALS, accurate measure,
 suitable for either Dispensing or Perfumery—

$\frac{1}{2}$ 1 1 $\frac{1}{2}$ 2 3 4 6 8 10 12 16 20oz.
 4/6 5/6 6/ 6/ 7/ 8/ 10 11/ 15/ 18/ 20/ 24/ gr.

Stop'd—16/ 17/ 18/ 19/ 22/ 24/ 30/ 33/ 36/ 39/ 43/ 51/ "
 BEST WHITE FLINT FLATS, for Dispensing, &c.—

$\frac{1}{2}$ 1 1 $\frac{1}{2}$ 2 3 4 6 8oz.
 4/6 5/6 6/ 6/6 7/6 8/6 10/6 14/ gr.

Stopped—16/ 17/ 18/ 20/ 22/ 24/ 30/ 34/ "
 ROUND SHOULDER KALI BOTTLES—

$\frac{1}{2}$ 1 1 $\frac{1}{2}$ 2 3 4 6 8 10 12 16 20oz.
 3/6 4/3 4/6 5/6 6/6 7/ 8/ 11/ 15/ 18/ 20/ 23/ gr.

Fitted with Box Tops— 13/ 15/ 20/ 24/ 28/ 30/ 33/ "

SELTZOGENES, wire covered—

$\frac{3}{12}$ $\frac{5}{17}$ $\frac{8}{27}$ Pints.
 each.

Liberal Discounts for large quantities.

SYPHONS 22/ per doz.

CASTOR OIL BOTTLES, Deep Blue—

$\frac{1}{5/6}$ $\frac{2}{7/}$ $\frac{3}{8/6}$ 4oz.
 9/6 gross.

BEST GREEN DISPENSING BOTTLES—

$\frac{3}{7/6}$ $\frac{4}{8/}$ $\frac{8}{13/}$ 16oz.
 17/6 gross.

FEEDING BOTTLES, Alma Mater, &c.—Straight

White Glass, 12/ gross, fitted complete with Box
 Tops, 30/ gross; 1/ kind, fitted complete, each in
 Box with Tube Brush, 50/ gross.—Bent, 1/ kind,
 57/ gross; 6d., fitted with Boxwood Tops, 32/ gross.

All Fittings for Feeding Bottles sold separately and at

very low prices.

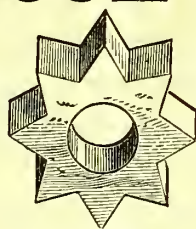
POMADE BOTTLES, fitted with Box Caps—2oz., 12/.

3oz., 16/; 4oz., 18/ gross.

Special Quotations given for any kind of Bottles.



G. F. SNOOK & SON'S
 NEW ARNICATED
 STAR
 CORN AND BUNION
 PLAISTER.



REGISTERED.)

OR WHITE SPREAD
 SHAPE
 CORN AND BUNION
 PLAISTER.

They will be found to possess greater advantages over all other Plaisters hitherto produced.
 The chief qualities depend upon their superior adhesiveness, being composed of very adhesive ingredients, and, owing to their
 shape, are not so liable to be drawn off with the sock or stocking.

SPECIALITIES FOR THE SEASON.

1d.



SNOOK & SON'S "INSECTO." the most effectual exter-
 minator for all kinds of Insects, ground from the finest selected Dalmatian flowers, and
 guaranteed pure. 3d., 1s. 9d.; 6d., 3s. 6d. per dozen. Each box is fitted with a per-
 forated zinc top, so that it can be used as a dredger. One dozen to any Wholesale
 House in London for 24 or 48 stamps. Special quotations for large quantity.

Snook & Son's New Brighton Bath Gloves. Sponge
 Gloves are made with thumbs, and filled with Sponge; will be found the most perfect
 substitute for the Sponge yet introduced. 6s. 6d. per dozen Gloves.

Snook & Son's Pure Starch Violet Powder, richly per-
 fumed, in handsome wrapper, as per illustration. One dozen, in a glass-top box, 1-lb.,
 30s.; 1-lb., 60s. per gross.

Snook & Son's 1d. Violet Powder, Pure Starch, each
 Packet with guarantee, in Show Boxes for the counter, as per illustration. Per gross, 5s.

Snook & Son's 1d. Pure Fuller's Earth, each Packet with
 guarantee, packed in same style as the Violet Powder. Price per gross, 4s. 3d.

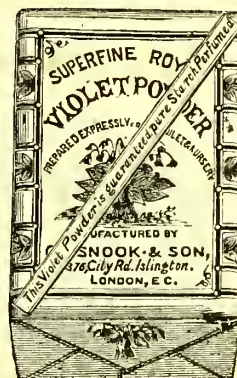
Snook & Son's 3d. and 6d. Fuller's Earth, in Round Fancy
 Gold Boxes, one dozen in a box. 3d., 18s.; 6d., 36s. per gross.

Any of the above goods may be had through all Wholesale Houses.

Price List or Samples free per 1 cs' on receipt of business card.

376 CITY ROAD, LONDON, E.C.

1 lb.



S. MAW, SON & THOMPSON'S BATH GLOVES, RUBBERS, &c.

Gloves. Straps. Pads.

CALEFACIO or BADEN, No. 1, soft

Brown . . . per doz. 6/4 10/8 6/0

CALEFACIO or BADEN, No. 2, hard

Brown . . . per doz. 6/4 10/8 6/0

CALEFACIO (the U.S.), Striped soft

Brown . . . per doz. 6/8 11/4 6/0

HONEYCOMB, white, per doz. 5/4 10/8 5/6

Gloves. Straps. Pads.

REVERSIBLE, No. 1, one side soft

Brown, the other best White

Turkish . . . per doz. 7/0 12/0 6/

REVERSIBLE, No. 2, one side hard

Brown, the other White Honey-

comb . . . per doz. 7/0 12/0 6/

"THE HAMMAM" TURKISH BATH,

per doz. 12/0 —

TURKISH THIN WHITE GLOVES, per doz. 4/-

PADS, per doz. 4/-

Ditto SUPERIOR QUALITY

,, 5/-

,, ,, 5/6

7 TO 12 ALDERSGATE STREET, LONDON



RIMMEL'S NEW SANITARY APPLIANCES.

RIMMEL'S AROMATIC OZONIZER, a fragrant powder which, simply spread on a plate apartments or places of public resort, evolves the refreshing and healthy emanations of the Pine and Eucalyptus, and produces a quantity of *Ozone*, the great air purifier. It is in use in the principal Hotels, Clubs and Theatres, and also in the Saloons and Cabins of several Lines of Steamships. In 4 oz. tins, 1s.; by post 15 stamps; 1 lb. tins, 3s. 6d.; Spreading Plate, 6d.

RIMMEL'S OZONIZED EAU DE COLOGNE, LAVENDER WATER, or FLORAL WATER, sprinkled on a pad hung up in the air, destroys bad smells and noxious effluvia in sick rooms, closets, &c. It is recommended also to be used on the handkerchief when attending crowded places, visiting the sick, or travelling by land or sea. Price, 2s. 6d. and 5s. per bottle; pad, 1s. A box containing a Tin Aromatic Ozonizer, a Bottle Ozonized Eau de Cologne, and a Pad, 5s.

RIMMEL'S NEW TRANSPARENT COAL TAR SOAP, combining the purifying properties of tar with the refined qualities of transparent soap. Price, 1s. 6d. per box of 3 cakes.

N.B.—Those preparations have been submitted to the examination of eminent Chemists, who have certified their excellent effect. A descriptive prospectus, containing certificates and testimonials, sent on application.

Sold by all Chemists and Druggists. The usual allowance to the Trade. Wholesale Price Lists sent on application to—

EUGENE RIMMEL, Perfumer to H.R.H. the Princess of Wales,

96 STRAND, LONDON.

WHITE AND SOUND TEETH.

JEWSBURY AND BROWN'S ORIENTAL TOOTH PASTE.

This old-established and increasingly favourite Dentifrice has been Forty Years before the Public. It is warranted to retain its properties and keep in good condition in any climate.

The original and only genuine is manufactured solely by

JEWSBURY and BROWN,
CHEMISTS, MANCHESTER,

and is distinguishable by the Trade Mark, printed in red and green, a facsimile of which is appended. Particular attention should be paid to this guarantee of genuineness, as numerous imitations are in the market.

Sold universally by Chemists and Perfumers, at 1s. 6d. and 2s. 6d.

The Trade and Shippers supplied by the leading houses in London and elsewhere. Bills and Show Cards forwarded on receipt of address card, and directions for enclosure.



ESTABLISHED 1843.

HOMPSON & CAPPER,

WHOLESALE & EXPORT

HOMŒOPATHIC CHEMISTS,

55 Bold Street, Liverpool,

AND

51 Piccadilly, Manchester.

NEW ILLUSTRATED PRICE LIST

ON APPLICATION.

HOMPSON & CAPPER have recently purchased the long-established business of HENRY TURNER & CO., Manchester, which they now carry on under their own name.

THOMPSON & CAPPER'S

DENTIFRICE WATER

Is kept by T. & C.'s Agents throughout the world.

PRICE CARD ON APPLICATION.

M. E. TOOMEY, Surgeon-Dentist, begs to direct attention to his recent invention in Dentistry, which is a perfect model of the mouth can be taken, together with the correct bite, in one operation, even by the patients themselves. To Invalids and persons residing at a distance requiring ARTIFICIAL TEETH this invention must be of great value. The apparatus or Tray is of Metal, shaped to fit the inside of the mouth. It is made in three sizes, one of which in practice is found to suit every variety of mouth. Placed inside the Tray is composition of such a nature that in less than a minute after being bitten into it becomes sufficiently hard to prevent hindering or sucking, in withdrawing from the mouth. All that is required is that the Tray be steeped in hot water for seven minutes, then insert in the mouth, and bite firmly. The following woodcuts will show the simplicity of the apparatus.

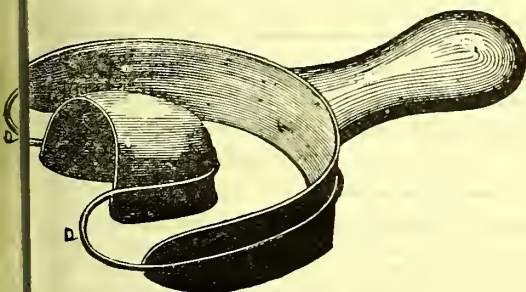


Fig. 1. The Tray empty.

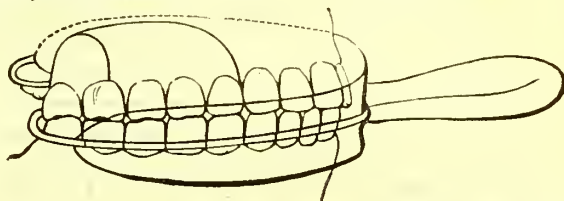
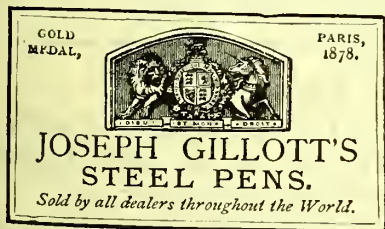


Fig. 2. The Tray in use.

RATHBONE PLACE, OXFORD STREET, W.



See page 17.

HOMŒOPATHIC MEDICINES.

E. GOULD & SON,

Chemists by Appointment to the London Homœopathic Hospital,

HOMŒOPATHIC CHEMISTS,

59 MOORGATE STREET, LONDON, E.C.

CHEMISTS' COUNTER SHOW-CASES.

No. 1.

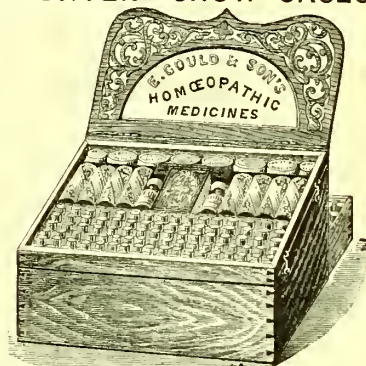
DIMENSIONS—

Length, 16½ in.;

Breadth, 14½ in.;

Height, back (with-out flap), 9 in.; ditto

front, 7½ in.



Case No. 1.—Price £5 5s.

,, No. 1a. ,, 2 10s.

,, No. 2. ,, 7 10s.

,, No. 3. ,, 10 Os.

,, No. 4. ,, 20 Os.

Subject to Discount for Cash.

List of Contents,

Wholesale

Prices of Medicines,

Medicine Chests, &c.,

Post free to any

part of the World.

Domestic Medicine Chests suitable for all Climates.

BEDDARD'S

SPRING & AUTUMN HEALTH SALINE.

Neatly put up in 6d. and 1s. Packets. *Very Saleable.*

BEDDARD'S

BELGRAVIA TOOTH PASTE.

A MOST EXCELLENT DENTIFRICE.

Handsomely put up in large Jars. ONE SHILLING EACH.

LIBERAL TERMS TO TRADE, SPECIAL TO SHIPPERS.

PREPARED ONLY BY

JOHN BEDDARD,
46 CHURTON ST., BELGRAVE ROAD, LONDON, S.W.

THE CONDY'S FLUID CO.

FALCON ST., LONDON, E.C.

(A. D. MITCHELL, *Managing Partner*)

Medicinal Uses : Important to Chemists and Medical Practitioners.

The Condyl's Fluid Co. beg to state that their Condyl's Fluid (Crimson) IS COMPOSED OF PERMANGANATE OF POTASH ONLY, in strict accordance with the Patent, and with the Standard Medical and Pharmaceutical Works and all published declarations of composition, and to contradict the extraordinary and mystifying statement made by another manufacturer that "GENUINE CONDY'S FLUID IS NOT AND NEVER WAS COMPOSED OF PERMANGANATE OF POTASH."

The Supreme Court of Judicature having settled the question of the Right to Manufacture Condyl's Fluid, Ozonised Water, &c., entirely in favour of Dr. Mitchell, the Company representing his interests beg to call attention to the above statement and to their reduced Trade Prices.

CONTINUED REDUCTION IN TRADE PRICES

THE CONDY'S FLUID CO., FALCON STREET, E.C., maintain the following Reductions in the Trade Prices of their genuine articles, which can always be relied upon as being of full strength and perfect purity:—

CONDY'S PATENT FLUID (Crimson), 1s. size, 6s. per doz.; 2s. size, 12s. per doz.; 4s. size, 24s. per doz.

CONDY'S PATENT OZONISED WATER, 2s. size, 12s. per doz.; 3s. 6d. size, 20s. per doz.

CONDY'S PATENT FLUID (Green), CONDY'S REMEDIAL FLUID, CONDY'S HEALTH POWDER, CONCENTRATED VINEGAR, &c., as before.

LIBERAL TERMS TO WHOLESALE AND EXPORT BUYERS.

N.B.—In ordering through the Trade, please NOTE THE ADDRESS, FALCON ST., and specify our article at REDUCED TRADE PRICES, which are listed by all Wholesale Houses less their usual discounts. THEY ARE MADE IN STRICT ACCORDANCE WITH THE PATENT, ARE UNIFORMLY UP TO STRENGTH, free from impurity and sediment, securely corked, and always give satisfaction alike to consumer and to dealer. THEY ARE GUARANTEED BY THE ORIGINAL LABELS OF THE LATE FIRM WITH PRIZE MEDALS AWARDED AT INTERNATIONAL EXHIBITIONS, the unwarranted use of which is a misdemeanor, and the right to which is confirmed to the Company by Decree.

THE CONDY'S FLUID CASE.

FINAL DEFEAT of MR. H. BOLLMANN CONDY FAILURE AND EXPOSURE OF THE "TRAP TO CATCH CHEMISTS."

CONDY v. MITCHELL. COURT OF APPEAL, LINCOLN'S INN, Nov. 27, 1877.

LORD JUSTICE JAMES (without needing to hear defendant's counsel) said—That such a suit should have been instituted at all was remarkable; but that, after the learned Vice-Chancellor's judgment, this appeal should have been brought on was particularly strange. Dr. Mitchell had obtained his right by payment of a substantial money consideration, and CONDY'S FLUID AND CONDY'S OZONISED WATER WERE AS MUCH PROPERTY AS THE PLAINTIFF'S. Having that right, Dr. Mitchell was entitled to set up the Condy's Fluid Company.

LORD JUSTICE BAGGALLAY was of the same opinion. The style of the partnership had been "Bollmann Condy & Co.," and plaintiff set up in his own name of "H. Bollmann Condy." It was not necessary to consider whether he might have been restrained from so doing; he came into court with a very bad grace. To get evidence HE HAD RESORTED TO WHAT WAS, IN FACT, A TRAP TO CATCH CHEMISTS.

LORD JUSTICE THESIGER was also of that opinion; and especially as to the character of the plaintiff's evidence. A good deal seemed to him not admissible at all.

LORD JUSTICE JAMES: APPEAL DISMISSED WITH COSTS.

FOSSILINE.

(REGISTERED.)

FOSSILINE is a *perfectly Pure Hydrocarbon Jelly* prepared from Petroleum, purified by special processes. It cannot become rancid, hence Ointments and Pomades prepared with it will keep indefinitely.

SAMPLES POST FREE.

PRICES—In 7 lb., 14 lb., & 28 lb. Tins, 10d. per lb.; in 56 lb. & 112 lb. Drums, 9d. per lb. *Tins and Drums free.*

SOLE MANUFACTURERS:

EVANS, SONS & CO.,
LIVERPOOL.



EVANS, LESCHER & WEBB,
LONDON.

H. SUGDEN EVANS & CO., MONTREAL, CANADA.

B.—The Manufacturers thank the Members of the Medical Profession and Chemists and Druggists for their appreciation of this article, and wish to inform them that they have erected additional plant to meet the increased demand. FOSSILINE needs no praise, since the immense sale which it has met with, and the sudden fall in the high prices of other articles of a kindred nature, speak sufficiently of its merits.

F. A. SARG'S SON & CO.'S

CHEMICALLY PURE GLYCERINES
AND
TOILET GLYCERINE ARTICLES.

CHEMICALLY PURE GLYCERINES.

Sarg's Double Distilled Glycerine, Chemically Pure,

° Beaumé, in Cases of Four 56-lb. Tins each; Twenty 5-lb. Bottles, Fifty 1-lb. Bottles, and 100 ½-lb. Bottles, with Registered Label.

Sarg's Double Distilled Glycerine, Chemically Pure,

½-lb. and 1-lb. Bottles, should have a place in every nursery on account of its salutary action on the heads of children, relieving them from dandruff and the roughness of the scalp they are so commonly subject to.

Sarg's Distilled Glycerine, Chemically Pure, P.B.,

29° Beaumé, in Cases of Four 56-lb. Tins each.

Crude Glycerine, in Bulk.

TOILET GLYCERINE ARTICLES.

Transparent Glycerine Soap,

registered Packets of three Tablets, 1s. Warranted to contain 33% of the purest Glycerine. Also in round Tablets, three in a Box; and in oval Tablets in paper.

Liquid Glycerine Soap,

preventive against chapped hands, 1s., and unrivalled in imparting softness to them, and rendering them clean and white. See Testimonials of Professor J. von Liebig, Baron; and of Professor F. Wöhler.

Scented Glycerine,

In Bottles at various prices. Either pure or diluted with water, this Glycerine is very successfully used for softening the skin, preserving the complexion, and preventing the very unpleasant roughness of the skin in cold weather.

Glycerine Cream

Is quite unequalled for imparting a fresh and healthy colour to the lips and keeping them from chapping.

Sarg's new Carbolic Glycerine Soap,

In Boxes of three Tablets, is highly recommended as a most effective disinfectant.

Sold by all Wholesale Chemists and Druggists.

Sole Wholesale Agents for the United Kingdom and the Colonies:

CHMEDES, ERBSLOH & CO., 6 CASTLE STREET, FALCON SQ., LONDON, E.C.;
14 MARKET BUILDINGS, FLINDERS LANE, MELBOURNE. 26 O'CONNELL STREET, SYDNEY.

NOVELTY! NOVELTY!

THE BEST, CHEAPEST, AND MOST SALEABLE NOVELTY OF THE YEAR

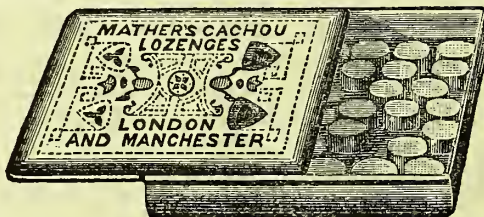
MATHER'S CACHOU LOZENGES

IN PATENT METAL SLIDE BOXES.

8s.

PER GROSS,

SUBJECT TO USUAL
DISCOUNT.



8s.

PER GROSS,

SUBJECT TO USUAL
DISCOUNT.

Special Quotations on application for Large Buyers and for Export.

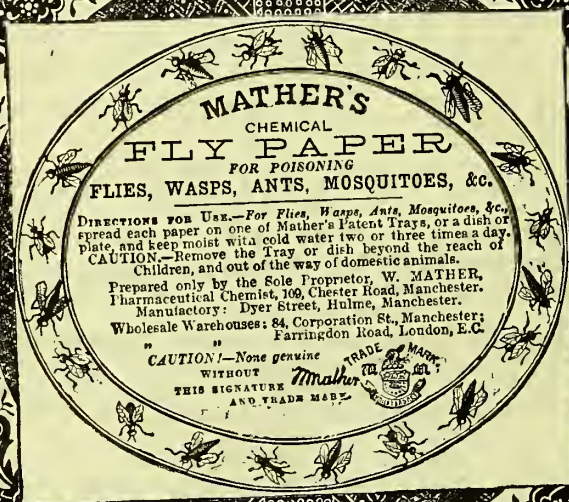
A Customer writes: "I must congratulate you on sending out the neatest and cheapest pennyworth I ever saw. Send me to gross more of your Cachous; though only opened late last night, nearly the whole of the box sent have been disposed of."

THE
MOST EFFICIENT.

THE
MOST SALEABLE.

PRICE 20s.
Per 1,000.

Special Discount to Large
Buyers.



WILLIAM MATHER,
DYER STREET, HULME, MANCHESTER

Index to Advertisements.

June 15, 1880.

SCALE OF CHARGES FOR ADVERTISEMENTS.

Whole Page, £5. Half Page, £2 15s. Third Page, £2. Quarter Page, £1 12s. Sixth Page, £1 5s. Eighth Page, 18s.

Special Rates for Wrapper and pages preceeding and following Literary matter, also pages facing inside of Wrapper. The above Scale of Charges will be subject to a discount of 10 per cent. upon 7 and 20 per cent. upon 13 insertions, prompt quarterly payments.

N.B.—An order for 13 insertions means 12 in the CHEMIST AND DRUGGIST and 1 in the CHEMISTS' AND DRUGGISTS' DIARY. The same rule also applies to an order for 7 insertions, or to an order for insertion until countermanded, if such order is in force in October of any year.

All Advertisements intended for insertion in the current Month must be sent to the PUBLISHER OF THE CHEMIST AND DRUGGIST on or before the 12th, except Employers' and Assistants' Advertisements, which can be received up to 10 A.M. on the morning previous to publication.

(A)

ACTION-GESELLSCHAFT FÜR ANILIN-FABRIKATION	51
ALLEN & HANBURY'S	Cod-Liver Oil, Matt Extract, Jujabes, 99
	Chrimist, &c.
ALLEN, R. J.	Resem-r's Gold Paints
ANALYTICAL SANITARY INSTITUTION	TEXT, 256
POLLINARIS CO.	Hangadi-Janus Apertient Water
ARNOLD & SONS	Enemas-Bronchitis Kettle
ASSISTANTS WANTING SITUATIONS	19
LYRTON & SAUNDERS	Willow Boxes

(B)

AILEY, W. H., & SON	Trusses
AISS BROTHERS & CO.	Wholesale and Export Druggists
ALL, HOBSON & CO.	Foreign Chemists
ALLIERE, TINDALL & COX	Important New Works
ARBER, T.	Vermine Killer, &c.
ARKER, E.	Printers
ARNETT & FOSTER	Soda Water Machinery, &c.
ARNETT & ELLERS	Patent Stopper Aërated Water Bottles, &c.
ARRON, SQUIRE & CO.	Wholesale and Export Druggists
ASTIN, A.	Wholesale Druggist
ATTLE, J. R.	Vermine Killer
ECKER, E., & CO.	Vegetable Parchment
EDDARD, J.	Belgravia Tooth Paste
EECHAM, T.	Pills
EST, W., & SONS.	Natural Mineral Waters
EWLEY & DRAPER	Dichroic Ink
NGLEY, J.	Aërated Waters
RD, F.	Ginger Beer Powder, &c.
INGHAM MACHINISTS CO.	Printing Presses
OND'S DAUGHTER	Caution—Marking Ink
ODAULT, H.	Pepsine
DURNE & TAYLOR	Smelting Salts, &c.
OWICK & CO.	Licouring for Cattle Food, &c.
OWLES & CROSS	Medical and General Printers
RACHER, P. H.	"Desideratum Mixer"
ADLEY & BOURDAS	Plate Powder
RAND & CO.	Specialities for Invalids
RETT, E. J.	Transfer Agent and Valuer
RISTOW, T. F., & CO.	Toilet Soaps and Perfumery
ROCK, F.	Dentistry
ROCK, J. L., & CO.	Pepsina Porcel
ROGESS, WILLOWS & FRANCIS	Wholesale Druggists
ROUGHH, J.	Chemically Pure Sp. Vini Rect.
ROUGHS, S. M., & CO.	Profitable Agencies for Chemists
RTON, G.	American Drug Mills
SH, W. J., & CO.	Essential Oils, Fruit Essences, &c.
SINESSES WANTED and FOR DISPOSAL	19
TOBER, W., & CO.	Homoeopathic Medicines
TT, W. E., & CO.	Chemists

(C)

DBURY BROS.	Cocoa Essence
NTRAL SCHOOL OF CHEMISTRY AND PHARMACY	14
NTHRETON, J.	Higginson's Enemas
NESEBROUGH MANUFACTURING CO.	Vaseline
UBB, J. C.	Seidlitz Powders, &c.
ARKE, F. J.	Blood Mixture
ARKE, BLEASDALE & CO.	Cod Liver Oil
EAVER & CO.	Field's Liquor Taraxaci
CKING, T. S.	Pill Machine
LE, G.	Pucking Cases
NDY'S FLUID CO.	Proper Composition
NDY, R., & CO.	The Cheapest Candy's Fluid
OPER, W.	Sheep Dipping Powder
RYN, STACEY & CO.	Syrupus Chloratis—Liebreich, Pepsin-Essenz, Chalmood Oil, &c.
ULTHURST & HARDING	Oils, Paints, Grease, &c.
AVEN, M. A.	Wholesale & Export Confectioner
AWSHAW, E., & CO.	Black Dye
FF, J. H.	Mineral Waters

(D)

DARLING, W.	Dentifrice
DARTON, F., & CO.	Scientific Instrument Manufacturers
DAVENPORT, J. T.	Chlorodyne
DAVENPORT & CO.	Soda Water Machinery
DAY, SON & HEWITT	Horse, Cattle, and Sheep Medicines
DENOUAL, J.	Peruvian Mixture Capsules
DINNEFORD & CO.	Solution of Magnesia
DOBELL, DR.	Works on the Heart and Lungs
DOWS, CLARK & CO.	Soda Water Machinery
DUNCAN, FLOCKHART & CO.	Chloroform, &c.
DUNN & CO.	Manufacturing Chemists

(E)

EDWARDS & BRADLEY	Patent Bed Convenience, Bandages, &c.
EDINBURGH SCHOOL OF CHEMISTRY AND PHARMACY	14
ELLIS & SON	Aërated Waters
EMPLOYERS WANTING ASSISTANTS	20
ENO	Fruit Salt
ERHARDT & CO.	Vegetable Parchment and Skins
EVANS, H. S., & CO.	Wholesale Druggists
EVANS, J.	Extract of Malt
EVANS, LESCHER & WEBB	New Premises
EVANS, LESCHER & WEBB	Fossiline
EVANS, SONS & CO.	Wholesale Druggists
EVANS, SONS & CO.	Fossiline
EWEN & SONS, J.	Clarified Lard, &c.
EVANS, R., & CO.	Zoedone

(F)

FARINA, J. M.	Eau de Cologne
FAULding & CO.	Wholesale Druggists
FELTON, GRIMWADE & CO.	Wholesale Druggists
FENNINGS, A.	Children's Powders, &c.
FIELD, J. C. & J.	Ozokerine, &c.
FINCH, RICKMAN & CO.	Mustard
FITCH & NOTTINGHAM	Leaches
FRANCIS, J.	Printing Presses
FRY & SONS	Chocolate and Cocoa

(G)

GABRIEL & TROKE	Capsuled Horse Balls
GALLAIS, E., & CO.	Mineral Waters
GENERAL MINERAL WATERS ASSOCIATION	Prospectus
GEORGE, J. B.	Pills
GERAUT, E., & CO.	Soda Water Machinery
GIBSON, R.	Jujabes, &c.
GILBERT, HINE	Transfer Agent and Valuer
GILLOTT, J.	Pens
GLASGOW APOTHECARIES' CO.	Recess Labelled Bottles
GODDARD, J.	Plate Powder
GOODALL, BACKHOUSE & CO.	Household Specialties
GOODALL, H.	Mixing and Levigating Machine
GOOSEY & ROGERS	Plasters, &c.
GOULD, E., & SON	Homoeopathic Medicine Counter Show Cases
GREENSILL, T. S.	Mona Bouquet
GREENWOOD, J.	Citrate of Magnesia Drops, &c.
GULLIVER, S., & CO.	Aërated Waters

(H)

HANCOCK, F., & CO.	Fluid Mixer
HANDYSIDE	Electric Nervein Snuff
HARRIS, P., & CO.	Zinc Oxyd. (Harris's)
HARRISON, W. B.	Norwegian Block Ice—Mineral Waters
HARSTON, A.	Ginger Ale
HAY, W.	Concentrated Essence of Jamaica Ginger
HAYWOOD, J. S.	Elastic Stocking Maker, &c.
HENNIC BROS.	Leary Goods
HINDE BROS.	Wire Brushes—Caution
HODGKINSONS, STEAD & TREACHER	Notice of K-momol
HOOPEL & CO.	Solid Rubber Bandages
HOOPEL, W., & CO.	Paleis Jacobit Venus
HOWLETT, S.	Shop Fitter

(I)

IDRIS & CO.	Sparkling Phosphate	77
INGRAM	Improved Enema Apparatus	60
INGRAM & ROYLE	Price List of Mineral Waters	100

(J)

JACKSON, M., & CO.	Chemical and Scientific Apparatus	17
JACKSON, T. S.	Wood Stains	24
JACKSON, W. & H.	Pumice Floating Hand Tablet	8
JAHNCKE, ERNST	Metallic Boxes	39
JAMES, LIEUT.	Horse Blistering Ointment	94
JAMES, R. J.	Horse Blister	94
JENNINGS & CO.	ABC Tobacco Pipe	80
JEWSBURY & BROWN	Tooth Paste—Important Notice	30
JEWSBURY & BROWN	Mineral Waters	71
JOHNSON, JOHNSON & CO.	Packet Tea Agency	89
JOSEPH	Eau de Cologne	25
JOYCE & CO.	Tic Sano—for Rheumatism, &c.	64
JUDD, H.	Teacher of Chemistry	14
JUDSON, D., & SONS	Gold Paint, &c.	22

(K)

KELLY & CO.	Post-Office Directory of Chemists, &c.	16
KEMP, W. H.	Wax and Honey	8
KEMPTHORNE, PROSSER & CO.	Colonial Druggists	47
KIDSTON, F.	Shop Fitter, &c.	48
KILNER BROS.	Glass Bottles	68
KIMPON, H.	Chemical and Scientific Bookseller	18
KINMOND & CO.	Apneumatic Mineral Waters	73
KNOWLES, T.	Seidlitz Powders	95

(L)

LALOR, DR.	Phosphodyne	58
LAMBE, J. B., & CO.	Seal Mottos for Mineral Water Bottles	74
LAMPLOUGH	Pyretic Saline	81
LANG, J. & J.	Glass Bottles, Feeding Bottles, Enemas, &c.	29
LAZENBY, E., & SON	Pickles and Sauces	90
LEATH & ROSS	Homoeopathic Medicines	3
LEON CLERC & CHARLES	Benzoline	96
LEVERMORE BROS.	Precipitated Chalk	49
LEWIN & CO.	Foreign Chemists	47
LEWIS, H. K.	Note-Book of Solubilities	13
LINDSEY & SONS	Truss and Bandage Manufacturers	66
LOEFLUND, E.	Extract of Malt	50
LORIMER, J.	Pepsine Sauce	91
LOWE, R. H.	Pills	60
LOW, SON & HAYDON	Toilet Soaps and Extracts	7
LYNCH & CO.	Double-action Tincture Press	12
LYNCH & CO.	Manilla Cabinet Paper	45
LYNCH & CO.	Trimmer's Extract of Malt	50

(M)

MACFARLAN, J. F., & CO.	Pure Chloroform	54
MALTING MANUFACTURING CO.	Maltine	5
MATHER, W.	Specialties, &c.	34
MAWER, E.	Dandelion Coffee	91
MAWSON & SWAN	Norwegian Cod Liver Oil	5
MAW, SON & THOMPSON	Paper Mowse—Insecticide-Vicat	93
MAW, SON & THOMPSON	Both Gloves, Rubbers, &c.	30
MAW, SON & THOMPSON	Sponge Bags—Bothing Caps	40
MAW, SON & THOMPSON	Lint	65
MAW, SON & THOMPSON	Sponges	23
MAW, SON & THOMPSON	Graduated Glass Measures	68
MAY & BAKER	Manufacturing Chemists	2
METZ, PAUL	Willow Bases	24
MILLARD, SONS & APPLETON	Catalogue and Price List	38
MILLS & CO.	Bourne Aërated Waters	78
MISCELLANEOUS		20
MONDOLLOT & CO.	Soda Water Machinery & Syphons	72
MOTTERHEAD & CO.	Benger's Digestive Preparations	51
MUDDIMAN, A. P.	Spanish Wash	24
MUMFORD, G. I.	Pure Crushed Linseed	TEXT, 256
MURPHY, J.	Marking Ink	26
MYERS & SOLOMON	General Merchants	47

(N)

NATIONAL CHEMICAL CO.	Chloride of Lime	38
NELSON, DALE & CO.	Beef Tea, Soups, &c.	86
NESTLE, H.	Milk Food	87
NEUSTADT & CO.	Chemicals	51
NORTH BRITISH CHEMICAL CO.		55

(O)

OAKEY & SONS	Emery Knife Polish, &c.	96
ODET, M. C.	Solution Odet	50
ORRIDGE & CO.	Chemists' Transfer Agents	18
OSBORNE, E. M.	Golden Drops for Deafness	62

(P)

PARKER, T.	Apothecary and Pharmacist	47
PARTNERSHIPS		20
PEARCE, ALLEN & CO.	Schweizer's Preparations, &c.	89
PETERSON & CO.	Sponge	89

PHILLIPS & SON	Dandelion Coffee	99
PICKERING, J., & SONS	Polishing Paste, &c.	96
PLUMER, E., & CO.	Foreign Chemists	47
PLUMBAGO CRUCIBLE CO.		95
POLGLASE, F. J. W.	Ether	49
PRATT, H. J.	Siddall's Beetle Powder	94
PROSSER, DR. JAMES	On Sore Throat	13
PULVERMACHER, J. L.	Galvanic Chain Bands, &c.	43

(R)

RAYNER, L.	Shop Fitter, &c.	19, 49
RICHARDSON, J., & CO.	Soluble Pearl-Coated Pills	57
RIDGE, DR., & CO.	Infant's Food	87
RIMMEL, E.	Perfumery	30
ROBARE	Aureoline, for Golden Hair	26
ROBBINS & CO.	Specialties	64
ROBERTS & CO.	Foreign Chemists	46
ROBINSON, B.	Dental Syringes, Corn Solvent Pencils, &c.	28
ROSS, W. A.	Ginger Ale	70
RUBECK, H.	Oleum Caryoph.	51

(S)

SALMON, ODY & CO.	Trusses	67
SAVARESE	Sandal Wood Oil Capsules	50
SAVILLE, J. T.	Capillary Germinal	26
SAVORY & MOORE	Special Preparations	42
SCHACHT & TOWERZEY	Liquor Bismuthi, &c.	54
SCHMEDES & CO.	Sarg's Glycerine, &c.	33
SCHOOL OF PHARMACY, BLOOMSBURY SQUARE		14
SCHWEPPE'S MINERAL WATERS	TEXT, 256	
SEABURY & JOHNSON	Porous and Spread Rubber Plasters	97
SILICATED CARBON FILTER CO.		70, 81, 85
SMITH, J., & CO.	Foreign Mineral Waters	71
SMITH, W. F.	Dandelion Antibilious Pills	69
SNOOK, G. F., & SON	Corn and Bunion Plasters	23
SOLPORT BROS.	Felt Corn and Bunion Plasters	26
SOUTHALL BROS. & BARCLAY	A1 Cod Liver Oil	42
SOUTH LONDON SCHOOL OF PHARMACY	W. Baxter, Sec.	15
SPRATT	Dog Cakes, Poultry Meal, &c.	92
STEDMAN	Teething Powders	TEXT, 256
STEVENS, P. A.	White Gutta Percha Enamel	26
STICKLAND & ROWE	Cigarettes for Asthma, &c.	58
SUSSEX DRUG CO.	Cobden's Quinine and Phosphorus Pills	10
SYMES & CO.	Araroba—Lac Bismuthi—Ol. Lavand. Rect., &c.	63
SYMES & CO.	Foreign Chemists	47
SYMINGTON & CO.	Coffee and Milk—Essence of Coffee	86, 89

(T)

TABULA ROSA DENTIFRICE		24
TAYLOR, T. & F. J.	Aërated Waters	75
TAYLOR, W. G.	Lint	65
THOMPSON & CAPPER	Homoeopathic Chemists	31
TINPLATE DECORATING CO.		22
TO LET		20
TOMLINSON, R.	Shop Fitter and Valuer	48
TOGOOD, W.	Glass Measures	68
TOOMEY, M. E.	Surgeon Dentist	31
TOWLE, A. P.	Chlorodyne	62
TREBLE, G., & SON	Shop Fittings, &c.	48
TRIPPIER, T.	Transfer Agent and Valuer	18
TULLY, J.	Teacher of Chemistry	14
TWENLOW, R.	Medicated Lozenges—Chlorodyne	43
TYLER, HAYWARD & CO.	Soda Water Machinery	70
TYLER	Feeding Bottles	TEXT 256

(V)

VALLET, L.	Ball Bottle Stoppers	74
------------	----------------------	----

(W)

WALKER & DALRYMPLE	Tea Agency	89
WARREN, A. & J.	Methylated Spirit	8
WEBBER & CO.	Henri's Taraxacum Coffee, &c.	89
WELLS & CO.	Pure Vegetable Charcoal	58
WEST, THOMAS	Okell's Mona Bouquet	22
WESTMINSTER COLLEGE OF CHEMISTRY AND PHARMACY		17
WHEELER & CO.	"Lime Juice Saline"	81
WHITAKER & GROSSMITH	Perfumery	28
WILCOCKS, N. G.	Soda Water Machinery	82
WILHELMS QUELLE NATURAL TABLE WATER		37
WOOD & DREWRY	Surgical Belt Manufacturers	67
WOODS, W.	Araca Nat Tooth Paste, &c.	24
WYLEYS & CO.	Wholesale Druggists	55

(Y)

YATES, W. S.	Chemists' Shop Fitter	8
YOUNG & POSTANS	Phosphorus Preparations	TEXT, 25
YOUNG, H.	Articulated Corn and Bunion Plasters	

(Z)

ZIMMERMANN, A. & M.	Agents for the Chemische Fabrik auf Actien, Berlin—Schering's Celloidine, &c.	
---------------------	---	--

An illustration of a mechanical device, likely a patent mill coater. It features a large, horizontal, ribbed drum or cylinder at the top, which is tilted. Below the drum is a large gear wheel with a central hub and spokes. A smaller gear wheel is positioned to the right of the main gear. A horizontal shaft or rod passes through the center of the main gear wheel. The entire mechanism is supported by a decorative, ornate base with a central column and a wide, flared bottom. The base has intricate carvings or patterns. The overall style is that of a technical or patent illustration from the late 19th or early 20th century.

*They are
now in use in
France, Germany, Russia,
Spain, Africa, America, Australia,
Canada, East and West Indies,
New Zealand, and by the
Chief Chemists of the
United Kingdom.*

ESE MACHINES—an original invention and lately patented—are a simple mechanical contrivance by which a perfectly regular rotary motion is given to the Pills. They have been in use some time in the manufacture of small and large quantities, and are guaranteed to Coat Pills equal to ever offered to the public. They may be seen in operation, but there is no difficulty in using them. They are in various sizes for the counter or House, and to coat from a quarter of a pound to a hundredweight. Those for the counter are somewhat an ornament. They are moderately priced, but by all who have had them, and are a great acquisition to the Chemist, retail or wholesale; indeed, from the increasing use of "Coated Pills," are necessary to every Chemist, and no better or cheaper article of the kind can be had. Directions accompany each machine.

PRICES:	{	No. 1 Coat up to	1 lb.	.. .. .	£1	5	0
		No. 3 " "	3 lb.	.. .. .	£3	3	0
		No. 5 " "	12 lb.	.. .. .	£5	5	0

CAUTION.—Any infringement of my Patent will be rigorously prosecuted. Purchasers are hereby cautioned.

Wholesale of **BOURNE & TAYLOR**, Druggists' Sundriesmen, 35 **CASTLE STREET, HOLBORN, E.C.**

WILHELM'S QUELLE.

NATURAL SPARKLING TABLE WATER

(GENERALLY CALLED "QUELLE.")

ABSOLUTELY PURE.

A natural restorer of the essential constituents of the blood. More effective than either Seltzer or Apollinaris."—*The Lancet*.

is pure, bright, sparkling, and
pleasant."—*Medical Times*.



WILHELM'S QUELLE.
A POWERFUL TONIC.

HEAD OFFICE—
7 BILLITER SQUARE, E.C.

"Develops the bouquet of the more delicate wines, which are deteriorated by admixture with most mineral waters."—JOHN HARLEY, M.D.

"Will greatly promote digestion in many cases of chronic dyspepsia."—
MORELL MACKENZIE, M.D.

For Testimonials and Price Lists, apply to the Sole Importers, THE WILHELM'S QUELLE COMPANY (Limited), 7 Billiter Square, London, E.C.; or to Richard Davis, 20 Maddox Street; W. Hudson, 37 Moorgate Street, E.C.; Harding, Richards & Thomas, Queen Street, Exeter; Vichy Water Company, 22 Boulevard Montmartre, Paris.

SOLD AT ALL SPIERS & POND'S ESTABLISHMENTS
THROUGHOUT THE KINGDOM.

THE BEST BLACK BEETLE AND OTHER VERMIN ERADICATOR.



CHLORIDE OF LIME

IN WATERPROOF, AIRTIGHT, & ODOURLESS PACKAGES.

Protected by Royal Letters Patent.

Is neat and clean, and convenient for use. Being airtight and odourless, retains its strength unimpaired.

It is admirably adapted for Export, and will keep for years in any climate.

In 1-lb., 4-lb., and 1-lb. Packages, packed into 24-lb. Boxes and 50-lb. Cases, each separately, or the three sizes assorted in each Box or Case. Also in Penny Packages, packed in 1-gross Boxes. Packed also into 1-cwt. and 1/2-cwt. Cases, to meet the requirements of the Export Trade and large buyers.

The Wholesale Trade and Shippers only supplied, and a Liberal Discount given. Samples and Terms on application.

WHOLESALE AGENTS:—S. MAW, SON & THOMPSON; BURGEOYNE, BURBIDGES & CO.; BARCLAY & SONS; W. EDWARDS & SON; WM. MATHER, London and Manchester; JAS. WOOLLEY, SONS & CO., Manchester; EVANS, SONS & CO., Liverpool; or may be had of any other Wholesale Druggist or Shipper.

NATIONAL CHEMICAL CO., 55 PITFIELD STREET, LONDON, N.

R. H. MILLARD, SON & APPLETON'S

A. B. C. AND INDEXICAL

CATALOGUE AND PRICE LIST

Of Druggists' Sundries, Patent Medicines, Perfumery,

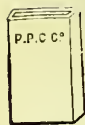
Feeding Bottles, &c., &c.,

IS NOW READY, AND WILL BE FORWARDED POST FREE ON RECEIPT OF TRADE CARD

40 CHARTERHOUSE SQUARE, LONDON, E.C.

PATENT PLUMBAGO CRUCIBLE COMPANY

(SOLE MANUFACTURERS OF MORGAN'S PATENT CRUCIBLES).



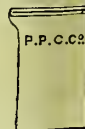
FLAT.

POROUS BATTERY CELLS

RED OR WHITE.



ROUND.



FLAT, WITH EARS

Diam. 1 in., length 3 in., 1/ per doz. Diam 1 1/2 in., length 3 in., 1/6 per doz.
 „ 1 1/2 in., length 3 in., 1/6; 4 in., 2/; 4 1/2 in., 2/; 5 in., 2/6; 5 1/2 in., 3/; 6 in., 3/;
 „ 1 1/2 in., length 4 in., 2/; 4 1/2 in., 2/6; 5 in., 3/; 5 1/2 in., 3/6; 6 in., 3/6;
 „ 2 in., length 4 in., 2/6; 4 1/2 in., 3/; 5 in., 3/; 5 1/2 in., 3/6; 6 in., 4/;
 „ 2 1/2 in., length 4 in., 3/; 5 in., 3/6; 5 1/2 in., 3/6; 6 in., 4/;
 „ 2 1/2 in., length 4 1/2 in., 3/; 5 in., 3/6; 5 1/2 in., 3/6; 6 in., 4/; 6 1/2 in., 4/6;
 „ 7 in., 4/6; 7 1/2 in., 5/; 8 in., 5/; 9 in., 5/6; 10 in., 6/ per doz.

Diam. 2 1/2 in., length 4 1/2 in., 3/; 5 in., 3/6; 5 1/2 in., 3/6; 6 in., 4/; 6 1/2 in., 4/6;
 „ 7 in., 4/6; 7 1/2 in., 5/; 8 in., 5/6; 9 in., 5/6; 10 in., 6/ per doz.
 „ 2 1/2 in., length 6 in., 4/6; 6 1/2 in., 5/; 7 in., 5/6; 7 1/2 in., 5/6; 8 in., 5/6;
 „ 9 in., 6/6; 10 in., 7/; 12 in., 8/ per doz.
 „ 3 in., height 6 in., 5/; 6 1/2 in., 5/6; 7 in., 5/6; 7 1/2 in., 6/; 8 in., 6/6;
 „ 9 in., 7/; 10 in., 7/6; 12 in., 8/6 per doz.
 „ 3 1/2 in., length 6 in., 5/6; 6 1/2 in., 5/6; 7 in., 6/; 7 1/2 in., 6/6; 8 in., 7/6;
 „ 9 in., 7/6; 10 in., 8/6; 12 in., 10/ per doz.

FLAT, all with Ears except those Numbers with *

No.	Hght.	Width	Depth	Price	No.	Hght.	Width	Depth	Price	No.	Hght.	Width	Depth	Price	No.	Hght.	Width	Depth	Price
1*	4 1/2	2 1/2	1 1/2	4/	15*	6 1/2	4	1 1/2	8/	29	6 1/2	4 1/2	1 1/2	8/	43	5 1/2	3	1 1/2	6/
2	4 1/2	2 1/2	1 1/2	4/	16	6 1/2	4 1/2	1	10/	30	6 1/2	5 1/2	1	14/	44	5 1/2	3	1 1/2	6/
3	4 1/2	2 1/2	1 1/2	4/	17*	7 1/2	6 1/2	1	18/	31	7 1/2	6 1/2	1	14/	45	8 1/2	4 1/2	1 1/2	20/
4	4 1/2	2 1/2	1 1/2	4/	18*	8 1/2	5 1/2	2 1/2	18/	32	8 1/2	5 1/2	1 1/2	14/	46	5 1/2	6	1 1/2	8/
5	4 1/2	2 1/2	1 1/2	4/	19*	10 1/2	6 1/2	1 1/2	24/	33	8 1/2	7 1/2	1 1/2	20/	47	6	6 1/2	1 1/2	12/
6*	5 1/2	2 1/2	1 1/2	5/	20*	14 1/2	8	2	36/	34	7 1/2	4 1/2	1 1/2	12/	48*	4 1/2	3 1/2	1 1/2	4/
7	4 1/2	2 1/2	1 1/2	4/	21	5 1/2	3 1/2	1 1/2	6/	35*	4 1/2	2 1/2	1 1/2	4/	49*	4 1/2	3 1/2	1 1/2	4/
8	4 1/2	2 1/2	1 1/2	4/	22	7	4	1 1/2	12/	36	5 1/2	4 1/2	1 1/2	8/	50*	4 1/2	3 1/2	1 1/2	4/
9	5 1/2	3 1/2	1 1/2	5/	23	4 1/2	2 1/2	1 1/2	4/	37	5 1/2	3 1/2	1 1/2	6/	51	6	4 1/2	1 1/2	6/
10	4 1/2	2 1/2	1 1/2	4/	24	4 1/2	4 1/2	1 1/2	8/	38*	6	4	1 1/2	8/	52	5 1/2	3 1/2	1 1/2	8/
11	4 1/2	3	1	6/	25	4 1/2	5 1/2	1 1/2	10/	39*	4 1/2	2 1/2	1 1/2	6/	53*	4 1/2	3 1/2	1 1/2	8/
12*	5 1/2	3	1 1/2	5/	26	5 1/2	4 1/2	1 1/2	8/	40	4 1/2	3 1/2	1 1/2	6/	54*	4 1/2	3 1/2	1 1/2	8/
13	5 1/2	3 1/2	1 1/2	6/	27	4 1/2	2 1/2	1 1/2	4/	41	4 1/2	2 1/2	1 1/2	4/	55	7 1/2	4 1/2	1 1/2	10/
14*	4 1/2	4 1/2	1 1/2	4/	28	6 1/2	3 1/2	1 1/2	8/	42*	6 1/2	4	1 1/2	8/	56	5 1/2	3 1/2	1 1/2	8/

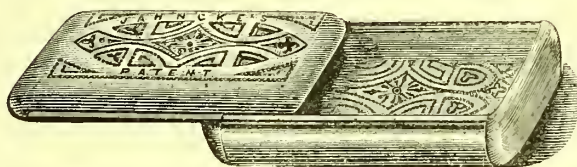
ALL SIZES MADE TO ORDER. SPECIAL QUOTATIONS FOR LARGE QUANTITIES.

Other particulars on application to

PATENT PLUMBAGO CRUCIBLE CO., BATTERSEA WORKS, LONDON, S.W.

JAHNCKE'S PATENT METALLIC BOXES

ON
Jahneke's Universally Patented System.



FIRST SERIES,

SLIDING LIDS,

SIZE:—No. 1.

DECORATED BY ARTISTIC ENGRAVINGS
TO ORDER.

ON SAMPLES, DRAWINGS, OR DESCRIPTION OF
TRADE MARKS,
SPECIAL DESIGNS, ADVERTISEMENTS, REPRESENTATIONS OF ARTICLES, &c.,
OR
STOCK PATTERN DECORATIONS WITH OR WITHOUT INSCRIPTIONS.

GOLD & SILVER COLOUR,
AN ELEGANT ARTICLE.

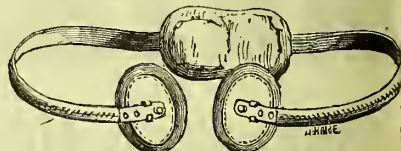
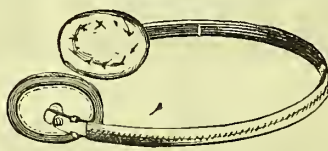
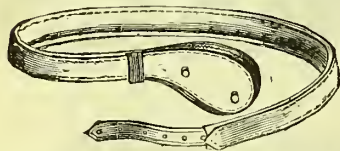
The greatest invention in box-making of the age, perfectly round corners in square boxes. The most useful receptacle ever invented, excelling in neatness, durability, and cheapness. Most convenient for carrying in the pocket, for travelling, or anywhere in any way. Opens most conveniently, and keeps perfectly shut, even when thrown about or dropped. None should be without them. Easy access to contents, and extreme containing capacity. Suitable for holding all small articles, such as Lozenges, Sweets, Cachous, Wax Vestas, Pins, Needles, Hooks and Eyes, Beads, Buttons, Pearls, Pons, Cut Tacks, Wiroils, Postage Stamps, Wafers, Scraps, Snuffs, and hundred more things. Will always remain a useful and attractive article and a great medium for advertising.

ERNST JAHNCKE,
MANUFACTURER AND PATENTEE,
CANONBURY, LONDON, N.
OFFICES: 33 ST. PAUL'S ROAD, N.

CAN BE OBTAINED THROUGH ALL THE WHOLESALE HOUSES.



FIG. 5.



SUSPENSORY BANDAGES—continued.

No.		
6.	Silk Oxonian, superior quality, bands of buff jean, with drawing-strings	per doz. £1 4
7.	Silk Bags, to button on, with tape under-straps..	" 1 1
8.	" " " under-straps to button ..	" 1 4

ELASTIC STOCKINGS, KNEE-CAPS, ETC.

Manufactured expressly for Export, and warranted to stand a hot climate better than any others in the Market.

<i>Manufactured expressly for Export, and warranted to stand a hot climate better than any others in the Market.</i>				Silk.	Super. Silk.	Cotton.	Super Cotton.		
	£	s.	d.	£	s.	d.	£	s.	d.
Stockings pair	0	9	0	13	6	0	5	3	0
Knee-caps "	0	6	0	9	6	0	3	6	0
Calf-pieces "	0	6	8	0	9	0	4	0	5
Socks "	0	5	0	7	6	0	3	3	4
Wristbands "	0	2	0	—	—	0	1	6	0
Knee Stockings "	0	15	0	1	3	0	0	8	9
Belts, to draw on .. each	0	15	0	1	1	0	—	—	0

SUSPENSORY BANDAGES.

No.				
1.	Cotton Bags and tape under- straps ..	..	..	per doz. 0 8 0
2.	Cotton Oxonian, with drawing- strings ..	..	..	" 0 10 0
3.	Silk Bags and tape under- straps ..	..	..	" 1 1 0
4.	Silk Oxonian, with drawing- strings ..	..	..	" 0 18 0
5.	" " Bags bound with elastic ..	..	..	" 1 4 0

The above may be obtained direct from the Manufacturers, or from their Wholesale and Export Agent,
Messrs. Barclay & Sons, 95 Farringdon Street.

MAW'S SUPERIOR WATERPROOF CHECK SPONGE BAGS

No. 1	2	3	4	5	6
7 by 6	8 by 7	9 by 8	10 by 9	11 by 10	12 by 12 in.
7s. 6d.	9s.	10s. 6d.	12s. 6d.	14s. 6d.	16s. 6d. per doz.

For other descriptions, see Quarterly Price Current, pages 76 and 77.

WATERPROOF BATHING CAPS

CHECK CAMBRIC, assorted sizes	...	...	per doz.	12s. 6d.
„ „ extra large	...	...	„	14s.
„ „ Circular, two sizes,	per doz.			14s. & 16s. 6d.
OILED SILK, three sizes	...	...	per doz.	12s., 14s. & 16s.
„ „ Circular, two sizes...	...	...	„	15s. & 17s.

For other descriptions, see Quarterly Price Current, page 41

S. MAW, SON & THOMPSON, LONDON.

PROFITABLE AGENCIES FOR CHEMISTS.



**MALT
EXTRACT.**

**KEPLER
COD LIVER OIL
WITH
Malt Extract.**

**Combinations of
KEPLER
Malt Extract.**

**WYETH'S
DIALYSED
IRON.**

**WYETH'S
Compressed
TABLETS.**

**NUBIAN
WATERPROOF
BLACKING.**

**Special
Inducements
to Shippers.**

"Is very good, and may be used with confidence."—*The Lancet*.

"Preferable to cod liver oil."—*Ziemssen*.

"First on the list as rich in diastase, and efficient in the digestion of starchy foods."—*Medical Times and Gazette*.

Put up in large Bottles, 12 oz. and 24 oz. (avoir.), enclosed in cases. Style attractive, your profit good.

THE BEST FOOD FOR PRODUCING FAT AND MUSCLE.

"Many could take it easily who cannot take the oil."—*Lancet*.

"Increases the nutritive powers of the oil and renders it more easily digestible."—*British Medical Journal*.

"Can be mixed with water or milk without separation."—*Professor Redwood*.

KEPLER MALT EXTRACT with Phosphates Comp. (Chemical Food); with Hypophosphites; with Iron (Ferrated); with Pepsin; with Hops; with Citrate of Iron and Quinine; with Beef and Iron; with Cod Liver Oil and Phosphorus; with Cod Liver Oil and Iodide Iron; with any combination to order.

All in large 24 oz. (avoir.) Bottles, and pay a handsome profit to Chemists.

THE MOST CONCENTRATED IN THE MARKET, AND, IN PROPORTION, IS THE CHEAPEST.

"We have found Wyeth's Dialysed Iron to be a pure and concentrated solution, which has been well prepared. It contains in each fluid ounce 27·68 grains."—Analytical Report by Professor TICHBORNE, Ph. D., F.C.S., to *Medical Press and Circular*.

"A very superior preparation of Dialysed Iron, of which Messrs. Wyeth are perhaps the largest makers in the world."—*The Chemist and Druggist*.

3 oz. Bottles, in handsome cases, 24s. per doz., retail at 3s. to 4s. 6d. Specify Wyeth's regular size.

COMPRESSED CHLORATE POTASH TABLETS, 5 grs. (WYETH'S).

"As lozenges none are superior. They are prepared without addition of sugar or any excipient, or mawkish fruit paste."—LENNOX BROWNE, Esq., in *Medical Press and Circular*.

**COMPRESSED CHLORATE POTASH and BORAX. Also,
CHLORIDE AMMONIUM, BI CARB. POTASH,
BI CARB. SODA, PEPTONIC, &c.**

"Excellent and reliable specimens of a distinct improvement in Pharmacy."—*British Medical Journal*.

POLISHES WITHOUT BRUSHING.

CONTAINS NO ACID.

PRESERVES THE LEATHER.

ONE COAT LASTS A WEEK.



An Agent is wanted in every town throughout the world for the above reliable and very useful articles, which find a ready sale wherever introduced.

Trial samples of any or all will be presented to shippers who will send them to their correspondents or to intending purchasers.

Manufacturers also desire to make liberal arrangements to advertise through their Agents in Foreign Countries. Correspondence solicited. Complete Lists, with Prices, on application to

M. BURROUGHS & CO., Snow Hill, LONDON.

THE NEW "A 1" COD LIVER OIL.

1880.

This Season's Oil is now ready, *the flavour is unusually delicate*, the colour brilliant, and it has been so prepared by our special process as to stand severely cold weather without being chilled.

The "A 1" Oil is made from beginning to end by us, and we are thus able to guarantee it to be absolutely pure.

PRICE, 9s. PER GALLON, IN WINCHESTER QUARTS.

Commencing with the issue of the New Oil we have begun to use for the Winchester Quarts a New Label in Colours, on which is written the words—

En Norsk Fisker.

Signifying "A Norwegian Fisherman"—the title being given to it through there being on the label a picture of a native Fisherman in Costume drawn specially for us from nature. There is also a picture of a Norwegian Fishing Boat at Sea, the Fjords being in the background.

We invite Orders for Sample Winchester of the "A 1" Oil.

SOUTHALL BROS. & BARCLAY, BIRMINGHAM

DRAPER'S INK (DICHROIC)

THE NEW BLACK INK, different from anything else ever produced.

Writing becomes a pleasure when this Ink is used. It has been adopted by the principal Banks, Public Offices, and Railway Companies throughout Ireland.

It writes almost instantly full black.

Does not corrode Steel Pens.

Dries rapidly on the Paper.

Is cleanly to use, and not liable to blot.

Flows easily from the Pen.

Blotting-paper may be applied at the moment of writing.

In Jars, 6d., 1s., and 2s. each.

Can be obtained, in London, through Messrs. BARCLAY and SONS, Farringdon Street; W. EDWARDS & SON, 157 Queen Victoria Street, London, E.C.; F. NEWBURY and SON, Newgate Street; S. MAW, SON, and THOMPSON, Aldersgate Street; JONES and CO., 98 Southwark Street; WM. MATHER, London and Manchester; AYRTON and SAUNDERS, Duke Street, Liverpool; and GOODALL BACKHOUSE & Co., Leeds.

BEWLEY & DRAPER, Limited, DUBLIN.

See "CHEMIST AND DRUGGIST," December 15th, 1874.

SAVORY & MOORE'S SPECIALITIES

The LIQUID EXTRACTS of the DIGESTIVE FERMENTS—
NEUTRAL ESSENCE of PANCREATINE.

A perfectly tasteless preparation, specially adapted for the peptonization of milk, arrowroot, and other mucilaginous articles of diet for general use in the sick-room. Dose, 1 drachm.

SALINE ESSENCE of PANCREATINE

AND

SALINE ESSENCE of PEPSINE.

PHOSPHORIZED COD-LIVER OIL.

This (the ORIGINAL) preparation was introduced by Messrs. SAVORY & MOORE in 1867, and advertised in THE LANCET in 1868, to attempt was made to imitate it until 1874, when notices of another preparation appeared in several Medical Journals.

The advantage of this (the ORIGINAL) preparation over the imitations of it consists in the ability to administer a SUFFICIENT dose of Phosphorus without the admixture of a LARGE quantity of Cod liver Oil. Dose, 1 to 2 drachms. Supplied in Bulk or Small bottles.

LIQ. FERRI HYPOPHOSPHITIS COMP. and VIN. FERRI HYPOPHOSPHITIS COMP.

Dr. FREDERICK CHURCHILL (Victoria Hospital for Children).

Solutions of the Hypophosphites of Iron (Ferrous Salt), Lime, Magnesia, and Soda, obtained without the aid of sugar or strong mineral acids, which have been used with marked success at the above-named Hospital as Tonic, Antacid, and Stomachic remedies of great value in the treatment of the Diseases of Children, and free from the objectionable characteristics of the saccharine "Chemical Food," an uncertain composition of "Steel Wines."—Vide *British Medical Journal*, March 27th, 1880.

Dose—of the Liquor, minims 15 to 60; of the Vinum, 1 drachm; to be diluted.

The BEST FOOD for INFANTS. { USED IN THE ROYAL NURSERIES.
The Most Perfect Substitute for a Healthy Mother's Milk. { ONLY FOOD specially prepared FOR INFANTS.

SAVORY & MOORE, 143 New Bond Street, LONDON, W.,
AND ALL CHEMISTS THROUGHOUT THE WORLD.



COLONIAL BUILDINGS, 41A CANNON STREET, LONDON, E.C.

Published on the 15th of each Month.

**Subscription, 10s. per year, payable in advance;
commencing from any date.**

Post free to every country in the world. Single Copies, 1s. each.

Post Office Orders to be made payable to EDWARD HALSE, at the General Post Office.

An index to the advertisements, and the terms for insertion, will be found on page 35.

Literary Contents.

	PAGE		PAGE
Pharmacologia	230	Editorial Notes— <i>cont.</i>	
Bell Scholarships	230	Preliminary Training	258
Upward Displacement	230	Future of the Trade	258
Stoddart, William Walter	231	Pharmaceutical Society of New Zealand	259
Chemists and Druggists' Trade Association, Annual Report 233		Drug Market Tricks	259
Residents of the Pharmaceuti- cal Society, Past and Present, Portraits	233	Preserving and Storing Olive Oil	259
Pharmaceutical Society Annual Meeting	238	Reviews and Literary Notes ..	260
Dinner	241	The Spirit of Nature. H. B. Baldon	260
Pharmaceutical Council	242	Irresponsible Chatter	262
Pharmaceutical Exhibition	245	Bankruptcies and Liquidations ..	261
Provincial Reports	250	Legal and Magisterial	265
Botting Aërated Waters	252	Weights and Measures Act ..	265
Notes of Novelties	254	Personalities	265
Indian Turpentine	254	Trade Notes	263
Chemists' Assistants' Association Meeting	255	Obituary	267
Editorial Notes	256	Gazette	267
Pharmaceutical Curriculum	256	Trade Report	268
Dental Jingoos	257	Exchange Column	269
Selling Diplomas	257	Monthly Price Current	271
		Correspondence	273
		Cricket Matches	276



The annual meeting of the Pharmaceutical Society ought forth nothing of special interest. The election for the Council resulted in the return of the twelve retiring members who offered themselves for re-election, together with Messrs. Andrews and Radley as new members.

The meeting of the Trade Association was very thinly attended, but some good work was reported. The following changes were made on the Executive Committee:—Messrs. Harrison (Sunderland), T. S. Johnson (Malvern), J. Phillips (Wigan), T. B. Stead (Leeds), and F. P. Williams (Manchester), were substituted for Messrs. G. A. Cubley (Sheffield), U. Jones (Leamington), R. Reynolds (Leeds), J. Shaw (Liverpool), and J. Wade (London).

Mr. Thomas Greenish has been elected to the presidency of the Pharmaceutical Society, vacant by the retirement of Mr. G. W. Sandford. We have the satisfaction of publishing portraits of both the past and the present Presidents.

A movement has been made in the Pharmaceutical Council towards establishing an enforced curriculum as preliminary to examination for pharmaceutical candidates.

At least, a committee has been appointed to investigate the relations of pharmaceutical education and examination.

The death of one of the most able of British pharmacists, Mr. W. W. Stoddart, of Bristol, is announced.

We have received a number of letters from chemists' assistants who have been written to by the British Dental Association asking them to resign their dental registration on the ground that they are not also on the Pharmaceutical Register. These gentlemen never said they were, and yet prosecution for false and fraudulent registration is hinted at. We have dealt with this matter elsewhere.

Several chemists have been prosecuted in London for being found in possession of inaccurate apothecaries' weights. They were fined in small amounts only; but this prosecution has pointedly revealed the danger to which chemists with unstamped weights and measures are subject. A letter from Mr. Haydon, secretary to the Chemists' Trade Association, in our Correspondence section, directs special attention to this matter.

A Bill has been introduced into the House of Commons to consolidate and amend the law relating to the manufacture of spirits. The regulations as to the retailing of methylated spirit are not affected by it, but clause 131 contains a sub-clause which subjects to a fine of 100*l.* any person who "sells or has in his possession any article in the preparation of which methylated spirits or any derivative thereof has been used." The preparation, use, sale, or possession of sulphuric ether and chloroform, are specially exempted from the operation of this clause, but we do not at present understand whether this Bill is intended to prevent the use of methylated spirits in soap, camphor, aconite, and belladonna liniments, for which express authorisation has been given by the Board of Inland Revenue. The clause just quoted seems to make methylated spirit of no value to anybody outside the special exemptions.

The exhibition of pharmaceutical apparatus and objects of interest to pharmacists held last month at Bloomsbury Square proved a distinct success. Some 500 visitors examined it, and none of these failed to find something new. The arrangements for the advantage of exhibitors and visitors were as perfect as the space at disposal would allow, and were very creditable to Mr. Holmes, the curator of the Society's Museum, on whom the organisation depended.

In a paper read before the Chemical Society, Dr. Dupré gave a simple method of detecting foreign colouring matters in wine, based on the curious fact that the genuine colouring matter of wine does not dialyse, while all artificial colouring matters, except alkanet, which can be readily distinguished, dialyse freely.

Our readers who are soda-water makers will be interested in a very practical paper written for us by Mr. John Briggs, the Nestor of the soda-water machinery trade. He records a number of experiments, and concludes from them that the custom of bottling aerated waters at a pressure of 120 lbs. is simply a waste of material and a needless risk and wear of machinery.

A herbalist charged at Sheffield with selling adulterated paregoric containing no opium raised the novel defence that a balsam of aniseed had been sold in mistake for paregoric, which he was not allowed to sell. He was fined 5*l.* and 18*s.* 6*d.* costs.

With our next number (July 15) we shall be prepared to stitch circulars, and can guarantee a distribution of ten thousand to separate firms.

Pharmacia.

THE BELL SCHOLARSHIPS.

WE look with some degree of interest to the number of candidates who may have entered themselves for competition for the Jacob Bell Memorial Scholarships. The examination takes place on the first Tuesday in July, and it is sincerely to be hoped that this year will not be marked by the strange apathy that has been shown of late. Should it transpire that these annually-offered prizes are still treated with neglect, it becomes a question whether the subject would not be worth official notice in a President's address, or in the Council's regular report. Great and undoubted progress has been made during the past few years in pharmacy. We are in a position, as a community, to command respectful attention from the outer world. There are many men amongst us who, having gained distinction as pure pharmacists, have gone far beyond their immediate circle, and ventured upon other paths of knowledge; and yet there is this persistent flaw in our Society, that its youngest members, from whom hereafter its ranks must be recruited, seem to treat these scholarships, which are equally honourable and advantageous, with complete indifference. We began some time ago to draw up statistics relating to this matter, but the illustrative figures were so poor that we had no heart to continue the attempt, and we can only re-echo the twice uttered public lamentation of Mr. Taylor, in which he expressed both his sorrow and his astonishment at the paucity of the applicants. We have come across but one explanation, which had the foolishness to include somewhat of a defence. This was a letter stating that the rewards of a similar character given by our great universities were far more remunerative, and that, consequently, our own scholarships were despised. It need hardly be pointed out that no basis of comparison exists. The amount of scholarship required from our students would not entitle a candidate to obtain the smallest university remuneration. It would not gain for him any open exhibition, emolument, or scholarship at either Oxford or Cambridge; it would not even enable him to pass a matriculation examination at any Hall or College. The wisdom of this limited demand upon the acquirements of the candidate is manifest, for our scholars are supposed to be commencing study, and to have made only that progress which may reasonably be expected during an apprenticeship. There is still less a basis of comparison when social considerations are taken into account. A man entering the universities has certain necessary expenses, which are imposed by a higher than a written law. These are incidental to his position, and as such unavoidable.

The Jacob Bell scholar is weighted by no such contingencies, and it is left to his own discretion to be as extravagant or as economical as he may think fit. Society makes no possible demand upon his resources in consequence of his social standing. In the first place, he has 30*l.* a year at his sole disposal: the Council gives him his education gratis, and, by a further act of generosity, he is presented with the books of which he stands in want.

We find it difficult to refrain from giving expression to the thought that masters must be to blame in the transaction. These scholarships were created for a double and an equal purpose. They were intended beyond question to keep alive, and to promote sound scholarship: they were meant also, as their name implies, as a means of holding in perpetual reverence the services of him whose name they bear. We would urge then respectfully on masters the duty

of strongly impressing on their apprentices the value of these memorial foundations. We would ask them not only to render their young assistants familiar with the pecuniary advantages to be obtained, but to stimulate them in the path of honour. Money must not be the one guiding star by which our youth steer their course, if there is to be hope in the future of English Pharmacy. In the hall of the Society's rooms there is a marble bust of Jacob Bell: that is one way of testifying our esteem. Surely we are further bound to show the reality of our respect by fostering that educational system to the establishment of which he consecrated his whole life.

UPWARD DISPLACEMENT.

The scholarship itself is far from having been a failure, it is only the competition for the honour that has been at fault. We have reason to be proud of the men who have been annually elected. One of them, Mr. William Elborne, has just written a most original paper on "Upward Displacement by Water."

He remarks that there are four processes for the preparation of tinctures sanctioned by the Pharmacopœia: these are simple solution, maceration, percolation, and combined maceration and percolation. In the preparation of tinctures by the last process there is a certain loss of weak tincture formed by continuing percolation with the remainder of spirit, which implies some loss of strength in the tincture, and also loss of spirit. The practice of pouring water upon the marc with a view to displacement of retained tincture is open to well-known objections. Firstly, the specific gravity of water being higher than that of rectified, or proof spirit, it naturally permeates down into the spirit, which at the same time has a tendency to rise into the water, thus materially assisting the diffusion or mixing of the two liquids; secondly, vegetable tissues possessing a greater affinity for water than for spirit, the latter is readily liberated from them, and rendered free to rise into the water. To obviate this disadvantage Mr. Elborne employs upward displacement, or the removal of the residual tincture retained in the marc by means of water (the heavier liquid) rising from below. One impediment is the slight diffusion which takes place at the line of contact. Proof spirit tinctures were made of orange, calumba, cinchona, cinnamon, hops, and rhubarb; while aconite and ginger (fort.) were treated with rectified spirit.

In making the proof spirit tinctures, the ingredients were powdered and macerated with the whole of the spirit of specific gravity .915, for the specified time, with occasional agitation. Percolation having been effected in a cylindrical percolator two inches in diameter, half an inch layer of glass was placed on the top of the marc to prevent the floating of solid particles, while a cork, previously adapted to the bottom of the apparatus, allowed a glass tube two inches long to be inserted, the free end of which was drawn out into a capillary opening. To this end was attached about a yard of indiarubber tubing communicating with a vessel placed above, containing distilled water, the pressure of a column of water having been thus obtained. The tube being filled with water and adjusted, a wire clamp attached to the lower portion of the tube was removed, and a slow and steady flow of water commenced. In this manner, after the lapse of an hour and a half, sufficient displacement will have been effected, the water having risen considerably above the marc, and with it will have been removed the retained tincture which forms a dense stratum on its surface. In making pint tinctures the measure was brought up to 19½ oz. by the addition of the requisite quantity of surface liquid from the percolator, the product filtered and made up to a pint with proof spirit. Having original

measured the product of percolation, the exact quantity required of the surface liquid was known exactly, and it was drawn off by a glass syphon, the two products being mixed and filtered and made up to a pint with proof spirit, the operation was complete. The tabulated results contrasted favourably as regards loss with those shown by the observations of Mr. Umney, when the tinctures were prepared on the large scale by the B. P. process with the subsequent use of the hydraulic press. Sundry experiments were undertaken for further elucidation of the subject.

Mr. Elborne stated in conclusion that he was not aware that upward displacement by hydrostatic pressure had been readily practised in pharmacy, although the principle was extensively resorted to for filtering purposes in the arts.

WILLIAM WALTER STODDART,

F.I.C., F.C.S., F.G.S.,

an excellent pharmacist and a man of happy temperament, has just passed away.

Many of our readers will be familiar with the genial expression of countenance and the frank good nature of our Bristol friend. No member of the British Pharmaceutical Conference stands in need of any description of his personal appearance. Mr. Stoddart had been for some time suffering from disease of the heart, but it was hoped that it was not of so serious a character as the result proved. There were, indeed, indications not unnoticed by those around him of impaired activity, and, all too soon for pharmacy, whose progress he certainly advanced, and for his companions, to whom he was endeared, he died on Sunday, May 30, 1880. The sad event took place at his residence, Grafton Lodge, Wynd Park, Stoke Bishop, Westbury. He was aged 56.

For many years Mr. Stoddart resided in the city of Bristol, and carried on the business of a chemist and druggist in North Street, until he took the public appointment of city analyst on the passing of the Act against adulteration, which created a new class of official chemists. Mr. Stoddart, as may be seen from his literary contributions, was a good read, and had taught himself a good deal of the varied knowledge which he possessed.

When residing in St. James's parish, he took great interest in church affairs, and paid much attention to educational and charitable movements, being several times elected churchwarden.

He was always ready to help in any good work that was going on, and while he was living at Stoke Bishop he sometimes gave lectures in the schoolroom there, as he did elsewhere, on geology, botany, and other kindred sciences. As an analyst he was painstaking and conscientious to the last degree, and most precise in his expositions and reports. He was an analyst for the county of Somerset as well as for the city and county of Bristol.

The career of even a successful pharmacist does not usually present much striking incident, and the life of Mr. Stoddart proves no exception to this rule, although his duties as an analyst brought him into more general contact with society. Immensely active as he was (and the term is used advisedly), he found full occupation in the immediate duties of his calling. He became a member of the Pharmaceutical Society in 1853, and was on its Council from 1868 to 1875.

One of his earliest papers was read on April 7, 1866, before the Bath Chemists' Association, on the "Nature and Properties of Heat Practically Applied." In this communication one may trace the characteristic tendency of his mind to bring the results of original research to bear upon the practical wants of pharmacy, and this will be found the

leading idea which ran through all his investigations. It would almost be expected that Mr. Stoddart should take a warm interest in his own sphere of provincial education. He became the President of the Bristol Pharmaceutical Association, and gave the anniversary address on two successive occasions. It was to the junior members of this association that Mr. Stoddart, after resigning the presidential chair, offered his services in a course of scientific instruction in the materia medica, chemistry, and botany of the Pharmacopœia. The students who had attended the course (about twenty) recorded their appreciation in the form of an address which they had framed and illuminated. Its presentation could not have been but most pleasing to the recipient.

Mr. Stoddart might have been content to remain and labour in his own neighbourhood, but a new influence was at work which effectually roused his energies, and directed them into a congenial channel. "Conference," said Lord Bacon, "maketh a ready man," and Mr. Stoddart was entirely of that opinion. He lighted up at these gatherings of British pharmacy; he was pleased himself and made others pleased. When during a discussion he had made a good point he would beam with satisfaction; he was only too glad to answer any question he was asked, and he entered upon the social amusements of the day with all the zest and much of the manner of a child.

Mr. Stoddart produced his first Conference paper at Bath (1864), Mr. Deane having been chosen to preside. It was on the "Purity of the Sulphate of Quinine of Commerce," in which he showed that quinidine and not cinchonine must be sought for as the chief impurity. The paper is noticeable as containing two indications in the analysis of suspected samples which have since been adopted, and one of which as a quinine test has been associated with Mr. Stoddart's name.

The first was micro-chemical, and depended on the crystallisation of sulphocyanide of potassium. He found that if a drop of a solution of this salt were added to a drop of saturated and neutral solution of suspected quinine, and the mixture observed by the microscope, crystals of sulphocyanide of quinidine and sulphocyanide of cinchonine, both of highly characteristic form, and wholly distinct from the sulpho-cyanide of quinine, would be formed at the same time, and would be observed if either quinidine or cinchonine were present. He thus describes the method of investigation:

"If only a small percentage of quinidine be present it will appear as an oily substratum, appearing under the lens as dust from the minuteness of its particles. Cinchonine will appear more decidedly crystalline. With a little practice the eye will easily distinguish which of the alkaloids is deposited.

"A very good plan is to place a very small drop on a glass slip, and to put another of the sulphocyanide by its side. Over both place a piece of thin glass, which will cause the drops to touch. Examine the line of junction under a $\frac{1}{4}$ -inch lens, when the crystals are seen and may be readily recognised. By this method $\frac{1}{10000}$ grain of quinidine or cinchonine may easily be detected. It is very interesting to see the particles all arranging themselves into the respective groups; the long slender needles of the quinine salt, the round crystalline masses of the quinidine, and the large well-formed prisms of the cinchonine salts. So remarkably constant is this reaction, that an observer who has once been accustomed to the general appearance can at once say with ease—This is quinine, this quinidine, and that cinchonine."

The quinine test, which is a modification of one by Liebig,

is now quoted in chemical manuals, and may be given in the author's own words.

"Into a glass tube or bottle put 10 grains of the suspected salt, dissolve in 10 minims of dilute sulphuric acid and 60 minims of distilled water; to this add 150 minims of pure sulphuric ether, 3 minims of alcohol, and 40 minims of a solution of hydrate of soda (1 part to 12 parts). Agitate well, and lay aside for 12 hours, when, if the slightest trace of quinine, cinchonine, or cinchonidine be present, they will be seen at the line of separation between the ether and solution of sulphate of soda."

The general result of Mr. Stoddart's inquiry went to show that the sulphate of quinine obtained through well-known wholesale houses was commercially pure, and quite fit for medicinal use. It was, in his opinion, the chemist's own fault if he were not supplied with an article of sufficient purity. His next Conference paper was produced at Dundee (1867), Professor Bentley being the President for the year. The title was "Notes on the Use of the Microscope and its Crystallographic Application." The following year at Norwich (1868), during the presidency of Mr. Daniel Hanbury, he contributed two papers, both of which attracted attention. They were typical of the class of information which it was the design of the Conference to elicit.

The first was on "Honey: its Formation and Changes," the second was on "Lemon Juice and its Decomposition." In the last communication he remarked, "Probably I should not be far from the mark if I said that half the liquid sold as lemon or lime juice has been a mineral rather than a vegetable production. A modern author coolly inform us that an artificial solution of sulphuric acid is more agreeable to the nautical palate than the true juice." When the Board of Trade passed the Shipping Act, by which it was enacted that the mate of every foreign-going ship should provide so much lime or lemon juice as that each man should have at least one ounce per diem so soon as the vessel had been ten days at sea, and that every sample should be examined by a special officer, "the consternation," said Mr. Stoddart, "among the merchants holding large quantities of lemon-juice may easily be imagined, for, although the Board of Trade had given considerable latitude in their requirements, yet hardly any in the market would stand the tests and pass the examining officer." Not an ounce of genuine juice was to be bought in Liverpool, Birmingham, and Bristol. The examination of a great number of samples showed that some were plainly artificial: a few contained sulphuric acid, but most of them were merely diluted with water. The greater number of those obtained from the retail shops were artificial, and in no single instance stronger than 24 grains per ounce. At the British Pharmaceutical Conference at Exeter, 1869, Mr. Stoddart brought forward his paper on "The Application of Spectral Analysis to Pharmacy." Having described the meaning of the term, the method of working, and the grand discovery in 1860 by Kirchhoff and Bunsen, he proceeded to enumerate in detail the results obtained from observation of the spectra of a long list of Pharmacopoeial preparations, amongst which were included many tinctures such as are generally used—fluid extracts, liquors, solutions, and medicated wines. The object of the paper was not to explain the bright lines of incandescence bodies, but the appearances of solutions and other liquids when subjected to this mode of investigation.

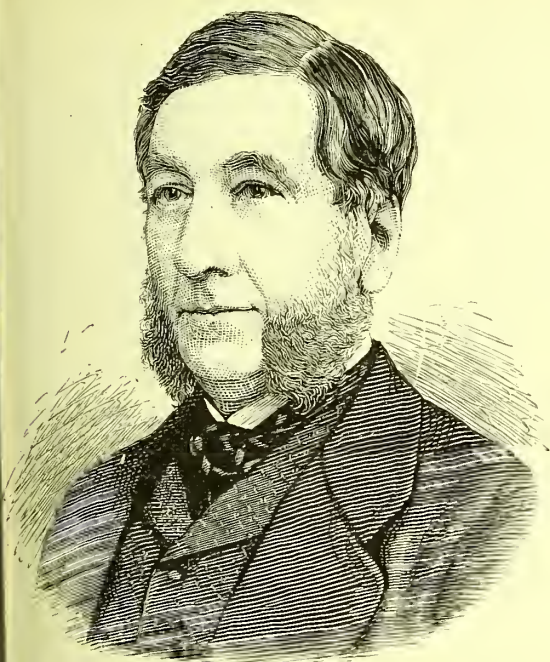
Mr. Stoddart was elected President of the British Pharmaceutical Conference at Liverpool in 1870, a year which was marked by the completion of the arrangements for issuing an official record of the transactions of the Conference under the title of the "Year Book." The editor

selected was the late John Cargill Brough. The following year Mr. Stoddart presided at Edinburgh, and on both occasions pronounced the customary inaugural address.

Circumstances just at this period seemed to favour his frequent appearance as a public character. At Bristol he was in great request, as has been seen already, and at the opening of the session (1872-3), at Bloomsbury Square, he was the appointed lecturer. At the Brighton Conference in collaboration with Mr. R. L. Tucker, he contributed a joint paper, which gave rise to a most animated discussion. It was on the tinctures and wines of the British Pharmacopoeia: the authors contended that there were two essential requisites for success in the process of percolation—one the proper form of percolator, and, secondly, strange as it might be to say, no direct packing. In their opinion, dependence could alone be placed upon the perfect cylinder, and that the most satisfactory work was done when the percolator had a diameter about one fourth the length, and when the ingredient occupied one-fourth of the interior, and it was recommended that the ingredients should be allowed to pack themselves.

The last of these contributions was read at Sheffield (1879), on "The Growth and Development of Claviceps Purpurea" (Tulasne). And now let us turn to another group of literary sketches which were specially characteristic:—"Twas on one of those glorious days of the month of August" (wrote Mr. Stoddart in the winter of 1870), "when sunshine and fine weather were doing their utmost to tempt the sedentary, that the author succumbed to their influence and wished for a dose of fresh air, with the exhilarating pleasure of a long walk in the beautiful environs of the good old city of Bristol. People were from home, some enjoying the sea breezes of Weston, or Clevedon, others the rock cliffs of Ilfracombe or Tenby. Physic and its accessories were at a discount, and little remained to strengthen the resolve and carry out the wish for a day's holiday and relief from the cerulean thoughts that are said sometimes to haunt the too zealous attendant at the shrine of business." What was to be done? The writer took his holiday in a fashion of his own; he determined to examine the locality for what portion of the materia medica could be found in a natural state. Mr. Stoddart, therefore, under the title of "Bristol Pharmacology," began a series of descriptive papers which appeared at intervals during six months, and in them no whatever of botanical, chemical, or pharmaceutical interest he could discover in his immediate neighbourhood. The series was interspersed with the happiest quotations from Greek, Latin, and English poetry, and read as a whole forms an excellent illustration both of his varied kind of learning and of his buoyant temperament.

Mr. Stoddart was a Fellow of the Institute of Chemists and also Fellow of the Chemical and Geological Society. He was Lecturer on Forensic Medicine at University College, Bristol, and had a considerable analytical practice. He devoted on Mr. Schaecht to convey the intelligence of the decease of Mr. Stoddart to the Council. Mr. Sandford, before resigning the presidential chair to his successor, expressed the regret which he and the Council felt at the loss of "one of the brightest ornaments of the Pharmaceutical Society." Having been associated with Mr. Stoddart for about 20 years on that Board, he felt very much grieved and depressed at the loss the Society had sustained, for although his occupations had of late kept Mr. Stoddart away from meetings, yet he had always advanced the honour of the Society and the Pharmaceutical Society. He was quite certain that all the members would join in sending a message of condolence and sympathy to Mrs. Stoddart and the family. The suggestion was acted upon unanimously. This is a record of a life well spent.



Truly Yrs
George W. Sandford

THE PAST



Yrs Truly
James Greaves

THE PRESENT

PRESIDENTS OF THE PHARMACEUTICAL SOCIETY.

The Chemists and Druggists' Trade Association of Great Britain

THE fourth annual gathering of the members of this Association took place on Tuesday, the 18th ult., at the Court Hotel, Lincoln's Inn Fields. The proceedings commenced as usual with the

MEETING OF THE GENERAL COMMITTEE.

Mr. Thomas Barclay, the President, occupied the chair. The Secretary having read the report convening the meeting,

THE PRESIDENT said the first business was to fill up four vacancies on the committee, and this was accordingly done by the addition to the committee of Messrs. Carr (Berwick-on-Tweed), Passmore (Exeter), Mason (Liverpool), and Joseph Ball (Birkenhead).

Mr. HARRISON (Sunderland) moved that the report and accounts be received and adopted, and recommended to the annual meeting. They had a balance in hand of 830*l.*, and last year it was only 89*l.*, and the past year might be added upon as one of exceptional expenditure. This was satisfactory. The only point in the report with which he was not satisfied was the part relating to the service of chemists and druggists on juries. He had written to the Secretary on the subject, and he and many of his neighbours thought

the time was very suitable for taking up the question. He hoped the Association would not wait until they had a new Pharmacy Act or a Jury Bill, but would endeavour to get the exemption extended to all on the register.

Mr. PHILLIPS (Wigan) seconded the motion, and said he agreed with Mr. Harrison on the jury question.

Mr. GREAVES (Chesterfield) took some exception to the part embodying the resolution on the subject of confining the sale of patent medicines containing poisons to registered chemists and druggists. He thought most gentlemen of the Executive Committee resided in large towns, and were hardly aware of the circumstances of rural districts. In his own neighbourhood there was an area of some 500 or 600 square miles with only fourteen registered chemists, and nine of those were in four places. The Act of 1868 had seriously interfered with the convenience of the rural population, it ought to have proceeded upon the lines of the Apothecaries Act of 1815, and recognised all dealers in poisons and drugs generally, more especially in the rural districts, and things would have righted themselves as time went on. He approved of the Pharmacy Act generally, and had done more for it than any chemist in Derbyshire, having passed many pupils from his establishment; but he contended that any amended Pharmacy Act ought in justice to make provision for the rural population. It was gross injustice for a poor man to have to lose a day's employment to get a trivial article in a sudden emergency, and instanced a place in Derbyshire where the distance from a registered chemist is 10 miles! He also objected to the recom-

mendation of the Trade Association Executive Committee to include patent medicines in the Act unless exception were made in the rural districts, as all such medicines contain ample instructions for their administration, and are no more liable to accident than medicines containing poisons that are compounded by medical men.

Mr. JERVIS (Sheffield) thought the greater part of the district referred to by Mr. Greaves was moorland.

Mr. GREAVES said the district contained 100,000 inhabitants.

The PRESIDENT in putting the motion said he should state in reply to Mr. Harrison that they had been advised by the Solicitor (who he regretted was unable to attend) that no steps could be taken in the matter of the jury exemption before an amended Pharmacy Act or a new Jury Bill were brought in. He himself was not satisfied with the financial position of the Association. The balance had somewhat decreased, and they could not regard the expenditure of the year exceptional. In reply to Mr. Greaves, he must remind him that their action in connection with the sale of poisons had been quite in accordance with public opinion. The Press were almost unanimous in requiring that those who sold poisons, whether in the shape of patent medicines or otherwise, should be registered chemists and druggists. They were not, therefore, simply acting in their own interest in his matter. No one would attempt to do anything opposed to public opinion, because if they did they would not only fail, but bring disgrace upon themselves. In country districts he understood it was the habit for people to keep themselves supplied with what they were likely to require from the nearest market town. Mr. Greaves's argument, if carried to its legitimate extent, would upset the Pharmacy Act altogether, and there would be free trade in poisons. He must also remind Mr. Greaves that the Executive Committee represented country districts as well as large towns.

The PRESIDENT said the next business was to prepare the list of names for the annual meeting for the election of the Executive Committee.

Messrs. Throssell, Mackenzie, and Davidson were appointed scrutineers, and while they were examining the papers

The PRESIDENT said a chemist had been summoned under the new Weights and Measures Act. It was a member who lived in a suburb of London. It was the first prosecution of the kind. The gentleman referred to had been very careful indeed, at least, according to their information, he had been very careful in having his weights and scales examined. Seventeen weights had been seized; some of them quite new. Under the circumstances they had determined that their Solicitor should be brought to defend, so that the case might be thoroughly investigated. A great deal of discussion had taken place lately in the *Pharmaceutical Journal*, and also in *THE CHEMIST AND DRUGGIST*, in regard to the new Act, and therefore he felt sure they would watch the case with very great interest. The President then referred to the absence of Mr. Jones, the ex-President, through illness. Mr. Jones, he said, had done great service in working on the Executive and in acting as the first President of the Association. So long as he had health and strength he was always at his post, and they owed much to him for the attention he gave to the Association. He was now laid upon a bed of sickness, and he (the speaker) was sure it would be in harmony with the wishes of the meeting that some expression of feeling should be sent to him from them. He therefore moved—

That this meeting of the Chemists and Druggists' Trade Association hears with regret of the illness of Mr. S. U. Jones, its late President, which prevents him again sitting upon the Executive Committee, and expresses the hope that he may be speedily restored to health.

Mr. HAMPSON, in seconding the motion, said he had the pleasure of sitting frequently with Mr. Jones at the Executive meetings, and they all felt that they had the right man in the right place. His presence in the chair not only was a benefit to the Association, but it inspired confidence outside.

Mr. CROSS (Shrewsbury) in eulogistic terms supported the motion, which was put and carried unanimously.

The PRESIDENT then called attention to the unpaid subscriptions, and asked for suggestions for getting them in. It was a very important matter, as they were rather short of funds.

Mr. SYMES suggested that members in various districts should have lists sent them of outstanding subscriptions for collection.

Several said they already received such lists regularly, and found no difficulty in getting the subscriptions.

Mr. WALKER suggested local secretaries for the different towns, a plan adopted by the Pharmaceutical Society.

The PRESIDENT replied that every member of the General Committee was ex-officio a local secretary, and acted as such in getting in the subscriptions.

Mr. HAMPSON appealed to members to send in their subscriptions unasked.

Mr. MALTBY suggested that in collecting subscription members should endeavour to get donations, so that they might build up a reserve fund for the future in case of need.

The following list was reported by the scrutineers to be chosen for recommendation to the annual meeting as the

EXECUTIVE COMMITTEE FOR 1880-81.

Andrews, Frederick, London	Jervis, W., Sheffield
Arblaster, C. J., Birmingham	Johnson, T. S., Malvern
Barclay, Thos., Birmingham	Kerr, Chas., Dundee
Bell, C. B., Hull	Mackenzie, James Edinburgh
Churchill, W. J., Birmingham	Maltby, Joseph, Lincoln
Cole, F. A., Colchester	Owen, John, London
Cross, W. G., jun., Shrewsbury	Phillips, J., Wigau
Davison, Thos., Glasgow	Southall, Wm., Birmingham
Delves, George, Exeter	Stead, T. B., Leeds
Hampson, Robert, London	Symes, Chas., Liverpool
Harrison, John, Sunderland	Walker, George, Coventry
Holdsworth, T. W., Birmingham	Williams, F. P., Manchester

THE ANNUAL MEETING.

The annual general meeting of members was held at 12.30 P.M., Mr. Barclay, President, in the chair.

After the SECRETARY had read the notice convening the meeting and several letters from members unable to attend

The PRESIDENT, in opening the proceedings, referred to the absence through illness of Mr. S. U. Jones, their late President, which they must all regret. He felt sure nothing but necessity would have prevented his attendance. The first question for them to consider was the report of the Executive Committee, and the general statement of the funds of the Association.

The report having been taken as read,

Mr. GREEN (Woolwich) moved the adoption of the report and balance-sheet. The only point to which he wished to refer was that of subscriptions, and he hoped what had been shadowed forth in the General Committee in the morning would be taken hold of and lead to further subscriptions.

Mr. MASON (Liverpool) seconded the motion.

Mr. SPINK (Westminster) said the report appeared to deal with a variety of questions respecting the general interests of the trade. It also seemed to him the Association had done very good service. But there was one very great one which was not mentioned in the report. He did not propose a resolution. He simply rose as a humble member to make a suggestion, and the suggestion was that the Committee should take into consideration the trading proclivities of the Civil service, and select delegates from its body to give evidence before the Parliamentary Committee, which doubt would be going on with its labours when Parliament met, for unless the chemists and traders generally made firm and determined stand now any effort in the future would be futile. As the Association had been for so many years watching the best interests of the trade and means by which they might be allowed to live, he thought it would be as well to send delegates to the Committee to give evidence. It grieved him very much to see that great body of chemists were so indifferent to their own interests. He had the honour of giving evidence before the Select Committee last June, and one of the first questions asked him by the chairman was whether he represented the society, and he felt strongly convinced that if he appeared in a representative capacity more weight would be attached to his evidence. But there appeared to be no unity among chemists, and he therefore made the suggestion to the general meeting that they might send delegates to give evidence. Surely they were harassed enough; with short weights and late hours and the examination they had to undergo, it was grossly unfair that those people could come forth and set up and trade and sell things

less than cost price. The stores had interfered with their trade more than it had with any other. Of course their turnover was very small, and consequently according to the ordinary tariff the profits were proportionately high; but the stores had a large business in other matters, and were able to put forward their goods in some cases absolutely less than cost price. He had the honour of being a candidate for a position in another place, and if he should attain that position he should advocate there what he was now doing, that delegates might be selected to attend and give evidence before the Parliamentary Committee.

Mr. LONG had much pleasure in supporting the resolution that the report and accounts be adopted. He also felt very strongly the position in which they were placed, and thought it very important that they should do all they could to put down co-operative trading, especially in prisons. If they chose to show a determined front they could make themselves heard; but of course if they were only a rope of sand they would never attain any object whatever.

Mr. HAMPSON said the question raised by Mr. Spink was of so much importance that it had better be dealt with thereon.

The PRESIDENT concurred, and the motion for the adoption of the report was then put and carried unanimously.

The PRESIDENT said the next business was to elect the Executive Committee and officers for the ensuing year, and called upon the Secretary to read the names selected by the General Committee.

This being done,

Mr. SPINK moved that the names elected by the General Committee form the Executive Committee for the ensuing year.

Mr. BROWN (Greenwich) seconded the resolution, and it was carried unanimously.

The election of officers was then proceeded with by ballot, Messrs. Spink and Urwick acting as scrutineers.

WEIGHTS AND MEASURES.

The PRESIDENT said it might be interesting to the members to know that one of their members had been summoned to appear before the magistrates to-morrow morning under the new Weights and Measures Act. He had been summoned, not for having ordinary weights used by ordinary sellers, but for grain and drachm and apothecaries' weights. They had been tested by the inspector, and reported to be correct. Last night the Executive Committee determined that the Solicitor should be telegraphed for, and he would doubt arrive that evening and take charge of the case. They did not know to what extent these weights were wrong, and of course were somewhat in the dark at present, inasmuch as it was the first time that apothecaries' weights had been called into question, they thought it their duty to take it up, especially as the gentleman who had been summoned informed them that he had been always very particular, and had had his weights and scales certified every two or three months, but he had never had his grain and drachm weights tested. It would depend very much on the kind of balance which was used in testing those small weights, because no doubt if one were used with such a beam that it would turn with 1-100th of a grain, hardly any of the weights in the country would be correct. One of the 17 weights which had been seized was a 3-grain weight.

Mr. LONG thought the question of the weights was a great boggy. For 1s. 6d. they might save themselves a great deal of trouble. He had both his sets of dispensing scales and sets of weights adjusted for the 1s. 6d. each; but still they did not all weigh alike, for after having the Government stamp on them, if the 2-grain and the 3-grain weights were put together they would not balance the 5-grain. But what signified so long as they had the Government stamp upon them?

Mr. HAMPSON would like to know if their weights were stamped how long they were supposed to remain correct. It was important to bear in mind that under this Act the trade was quite unprotected. If such a thing occurred as an inspector having a grudge against a man he might easily, when he took the weights away, file a little off one of them, and there was no protection whatever to the

tradesman. They were absolutely at the mercy of the inspector. Under the sale of Food and Drugs Act there was some protection, because the sample purchased was divided into three portions, but it was not so here. Of course he did not mean to say that the inspector would tamper with the weights, but if he wished to do so they were absolutely at his mercy.

Mr. PHILLIPS (Wigan) said he believed it would also be illegal now to use scales with anything attached to them to adjust them. It often happened in cleaning scales they got a little incorrect, so that they were obliged to put a bit of lead at the bottom to balance, but that he now understood would be illegal.

Mr. CHURCHILL called attention to the fact that according to the new law it was no use for a country chemist to buy weights stamped with the London stamp. Chemists would now require to have their weights stamped by their own local authority. As soon as he got home he should communicate with their inspector to see if he was ready to stamp his weights.

Mr. SYMES wished to correct this view, as he believed it was not quite correct, as London weights were good in any part of the United Kingdom.

Mr. ROBINSON (Norwich) thought inspectors were not very anxious to carry out the law. He had recently inquired of the inspector in his own town, and he told him he had not yet received the standards, and supposed he never should.

Mr. ANDREWS thought there were very few inspectors who could properly test a 3-grain weight.

THE GENERAL COMMITTEE.

The PRESIDENT next called attention to the next election of the General Committee. It was a very costly proceeding in the matter of postage and printing, and involved a deal of trouble to the members, and therefore two years ago they decided that the election of the General Committee should take place every alternate year, and unless there were some good reason for altering it they should do the same again. He would therefore move,

That this meeting directs that the next election of the General Committee take place in 1882.

Mr. SHEPPERLEY seconded the motion, which was agreed to *unanimously*.

THE FORMER PRESIDENT.

The PRESIDENT next moved the resolution quoted above in reference to Mr. S. U. Jones. He said Mr. Jones was elected President at the inception of the Association, when it was looked upon somewhat coldly by some gentlemen in high quarters, and in his position as its first President he occupied a very delicate position. His presence as President gave an amount of satisfaction and confidence which did very much to consolidate and help forward the Association. He deeply regretted his absence from the Executive Committee. Mr. Jones was always at his post, and by the thoughtful and considerate judgment he gave every question which came before him he rendered the Committee great service.

Mr. HAMPSON, Vice-president, seconded the motion, which was supported by Mr. SYMES (Liverpool), and carried unanimously.

THE OFFICERS.

The scrutineers at this stage of the proceedings returned, and

Mr. SPINK begged to inform the meeting that there was no change whatever in the Executive for the coming year, and he thought they might accept gladly this unanimity of feeling amongst those present. He wished the same unanimity of feeling existed throughout the trade as evidently existed there. With the exception of one or two votes the vote was unanimous.

The PRESIDENT thanked them most heartily for their expression of confidence, not only on his own behalf, but on behalf of his colleagues, for this renewed mark of confidence. He could speak at any rate for his colleagues that they had, during the year, given their best attention to the interests of the Association; their hearts had been thoroughly in the

work, and he felt sure that so far as they were concerned, the meeting had done well in re-electing them. For his own part he felt great interest in the Association, and had done so from the first, and during the past year he had done his utmost to further its interests and those of the entire trade. The resolution adopted with regard to the report was one for which he would also thank them. That report in a very few words gave them the results of the work of the Executive during the year, but it could not show the amount of work required to produce such a report. The amount of care and anxiety with regard to the various matters which came before the Law Committee especially could not well be stated in words. They were glad to know that they had in the year made a very slight increase. They had 4,527 on the roll, but there were over 3,000 still outside, and it only needed a little effort on behalf of the Association to largely increase the numbers during the present year. The work must commend itself to the trade generally, and he trusted that a very strong effort would be made during the present year to increase the number of members, so that at the next annual meeting they might congratulate themselves on a further increase. The receipts during the year had been 1,256*l.*, and the expenditure 1,395*l.*, which was going in the wrong direction, showing a deficiency of 139*l.*, and that was accounted for in this way, that at the last annual meeting they had a balance of 896*l.*, whilst this time there was only a balance of 830*l.* When there was a balance in hand there was always a feeling that it was not the time to increase subscriptions or give donations, and he was therefore glad that at the general meeting that morning, Mr. Maltby, of Lincoln, made a very practical suggestion, that they should endeavour to increase the donations in order to have a sort of guarantee fund, which might be drawn upon in the event of any exceptional necessity, so that they need not consider so carefully whether they dare go forward or not in the defence of cases put before them, so long as they knew they were cases which ought to be defended. He had sufficient confidence in the trade to know, as in the case where Mr. Shepperley was defendant, they would always receive liberal responses to a call for funds, but still it would be better, and make them more free to act on the Executive Committee, if they had some invested funds. It was not unfrequently the case, that they had to inquire of the treasurer how their funds stood when a case came before them, and that was not a very pleasant state of affairs, for it tended to cramp their action. During the past year 143*l.* only had been given in the shape of donations. The first year they had 1,028*l.*, and in the second year 375*l.*, and in the third year 1,645*l.* They had, however, last year a special donation which, perhaps, required a little attention, and that was 165*l.* from the Apothecaries' Company, which was very welcome indeed to their funds. They were very well satisfied with it for many reasons. A very serious matter in connection with the state of the funds was that over 1,000 subscriptions were still unpaid, and that called for the attention of every member of the Association. If every member would exert himself they would soon have a very different state of affairs. He was sure a great many only required to be asked for it, it was so small. That morning several gentlemen had volunteered to go round in their own districts and collect the subscriptions, and he trusted the Secretary would have some further volunteers in that way before the meeting closed. With regard to the 165*l.* received from the Apothecaries' Company, they were very glad to receive it, because it showed the case was finished. It closed up a case which caused a great deal of anxiety, not only to themselves but to the whole trade and the Apothecaries' Company as well, for if it had gone on with that sort of thing it could not fail to bring disgrace and ignominy upon itself. None of them who mixed much with medical men but knew there was no sympathy on the part of the better class of members of that profession with the prosecution which was instituted. They had in that defence brought out public opinion. They had some very strong opinions from the general press, and they might be quite sure that no chemist would be interfered with in the future who followed his calling in the ordinary way and did not undertake to do anything beyond what chemists had undertaken to do since the business had first grown up. During the year some Medical Bills had been introduced which had been watched very carefully. They had watched

them very closely to see that the rights of chemists were not interfered with, but they were glad to find that their friends had not attempted to interfere with the rights of chemists, and throughout had abstained from including the penal clause in the Apothecaries' Act. During the year the Association had undertaken to prosecute offenders for infringements of the Pharmacy Act, though they were limited in their action in this matter, and could only prosecute under the 17th section, so that vendors who called themselves chemists, though they were not so, and who labelled their poisons as chemists, they had no control over. If, however, they did not comply with the 17th section they could take action, and in ten such cases they had taken action, and in every case they had succeeded. It was also satisfactory to know that in no case in which a conviction had been obtained had any chemist been called upon to give evidence. The officers of the Association attended on public grounds to secure the conviction of offenders. This proved the necessity and usefulness of the Association most incontestably. Eight cases had been sent to the Pharmaceutical Society, and in one of these the Secretary had used the evidence forwarded to him and had obtained a conviction. It was a subject for congratulation that they had thus for the first time obtained concerted action between the two Societies. They were not working in any way in antagonism to the Pharmaceutical Society, and so long as that Society would do its utmost to further the interests of chemists, so long would it have the hearty sympathy of the Association, and anything the Executive could do would be readily done to assist it. They must not forget in speaking of the Pharmaceutical Society that it occupied a very different position to themselves. It not only represented the trade, but it also represented the Government and the public. They, on the other hand, were purely a trade association, and could undertake cases in the police court with regard to adulteration and many other things which the Pharmaceutical Society could not so well do, and therefore he felt there was work for both, and they might work with a common object in view. He mentioned this because the Society was often blamed for not doing things it could not do, and he hoped to secure the co-operation of those members of the Society who had not yet joined. During the past year the Pharmaceutical Society had had a very important matter before it, and they heartily endorsed its action in regard to the London and Provincial Supply Association. The Council might feel assured that the Executive watched with great interest and anxiety its action in that matter, and were glad to find that they had the courage to go forward to the House of Lords. It was a good case, and if beaten in the House of Lords would necessitate the united action of all parties connected with the trade to get an amended Pharmacy Act to prevent such a state of things continuing. If the law were what it sooner it were made strong the better, because it was an outrageous thing that any corporate body, say half-dozen grocers, could employ a qualified chemist and set up a large trade. There was a law against a chemist taking a partner who was not a qualified man, or even the widow of a chemist against carrying on the business with a qualified assistant, and yet, according to the latest decision, half-dozen grocers might meet together and employ some nondescript chemist to carry on a large trade. If this were found to be the real state of the law they must get the law amended as soon as possible. With regard to the Jury Bill some little feeling had been expressed that the Association might have done something during the year, but the Solicitor advised them that it would be unwise to attempt any action in regard to the Jury Bill before an amended Pharmacy Act or a Jury Bill came before the House, and therefore the matter had been allowed to slide. He was glad, however, to see that their friend Mr. Harrison, who had been such an enthusiast on this subject, was now a member of the Executive, and therefore there was no doubt it would receive due attention. With regard to the Adulteration Act, several cases had come before them during the year, one of which they could not defend, because it appeared that the individual prosecuted had not taken sufficient care, and they felt they could not defend anyone in the shape of adulteration. Three cases, however, they had defended successfully. After giving the details of cases, the President said that the magistrates and analysts alike were most of them ignorant of the technicalities of

trade, and they found it was necessary there should be some amendment of the Act. At present they were obliged to pay the cost of the analyst whom they employed to give evidence, although the decision might be in their favour. They intended, on the first opportunity, to move for an amendment of the Act, so that the costs should follow judgment. They also wanted a central board established, to which the evidence should be sent before any prosecution was authorised, and not leave it in the hands of the local analyst. They did not want Mr. Angell to determine whether a chemist was to be proceeded against or not. He believed the Association generally were agreed that it was the right course to take, to go forward and endeavour to obtain such an alteration of the law as would prevent patent medicines containing poisons being sold by unqualified persons. This was one of the objects set forth when the Association was first started, and it was satisfactory to find that the object had been kept well in view. He thought the Association had been fairly successful.

Mr. URWICK asked if the Association would take up cases sending out poisons by unqualified persons, which the Pharmaceutical Society would not take up.

The PRESIDENT said those were cases which the Executive are always glad to have brought to their notice, and though they could not pledge themselves without looking into the case, he was prepared to say that if their Solicitor thought it was a case which they might successfully prosecute, they would take it in hand at once.

Mr. HAMPSON, as Vice-President, returned thanks for the election, and said he should continue to work zealously theretofore. If possible, he would put a little more steam into the matter. It was difficult to pick out any special questions on which to speak, as he was interested in most of them, but he would like to refer to the question of co-operative trading. They knew that he had given this subject a great deal of attention, and had urged it upon the Pharmaceutical Society, and he was gratified to find that a case had ultimately taken into Court, and that it was being tried to the highest tribunal. But there was one aspect which he would like to refer to, and that was with reference to its effect upon the medical profession. They were said to be a branch of the medical profession, and he should like to ask what would be the effect of dispensing being practised in large stores for the bulk of the population instead of under the conditions which prevailed at present, where chemists distribute it for the convenience of the public. His opinion was that it would react very much against the medical profession if this continued, for they certainly would not have men of intelligence coming into the trade. It was hard enough now to get a living, but if these things went on it would be simply impossible. They were essentially a part of the medical profession. They were responsible, as it were, for the profession of pharmacy. He hoped the Association, whatever came of the matter, would prevent it to its extreme limit. He heartily sympathised with Mr. Spink as to the smallness of their meeting. It was a very small meeting indeed, notwithstanding its representative character. This was the metropolis of Great Britain, and everybody was grumbling about the state of trade, and yet they could not get the room full. It showed how very much they were deficient in the enthusiasm necessary to give effect to the objects of the Association. There was another point, and that was the question of the Pharmacopoeia. It was an important matter that the Pharmacopoeia should be partly framed by the chemists of the country. They held a humiliating position in the Pharmacopoeia, and he hoped the matter would continue to have the support of the Executive. They had to consider what they could do to make pharmacy worth practising in this country. As they all knew, he heartily supported the defence of Mr. Shepperley; but they would have to concentrate their energies upon this point—the obtaining of the dispensing of the country. At present they had not got it. They had simply the crumbs from the rich man's table. They were not pharmacists: they were little better than pettifogging lawyers, many of them. The time might arrive when they could appeal to the Legislature on this question, for he considered that it was as much their function to dispense prescriptions as it was for doctors to prescribe.

Mr. SHEPPERLEY congratulated the President on the very able manner in which he had explained the report of the

past year, and in doing so he would express his pleasure that the Apothecaries Act had been consigned to repose.

CIVIL SERVICE STORES.

Mr. SPINK then moved—

That this meeting recommends the Executive to appoint delegates to appear before any Parliamentary Committee which may be appointed to receive evidence on the question of co-operative trading.

He believed that such evidence would carry very great weight with the Committee of the House of Commons. It seemed matter of surprise to some such action was not taken before. As a body they had really been asleep in the matter.

Mr. URWICK seconded the motion. He thought it of the greatest importance that they should send delegates to give evidence. The Committee would not pay so much attention to any man who volunteered to give evidence as to anyone regularly appointed, and he hoped the Pharmaceutical Society would also be induced to adopt the same course.

Mr. LONG thought it a most absurd thing that persons could evade the law by two or three combining together. The great thing was for the chemists to be more united. They were the real makers of genuine patent medicines, and they might very well put all the other rubbish in the dust-hole. Why did they not supply themselves? Why allow other persons to take the trade out of their hands?

Mr. CHURCHILL said Mr. Long had hit the right nail on the head. Many chemists were the proprietors of patent medicines, and a few who made those articles confined the sale of them to qualified men. He trusted that wherever chemists found that that was being done they would heartily support those proprietors.

The motion was then put and carried.

Mr. ADLIN called attention to the fact that the name of one of the Judges before whom the case now pending was last tried appeared as a member of a co-operative stores in South Kensington.

Mr. SPINK said he always understood that it was the rule that if any Judge were interested in the trial of a case which came before him he should leave the Bench, and certainly if a Judge held shares in a co-operative society it was not consistent that he should adjudicate on a question relating to stores.

Mr. ANDREWS suggested that it was a point which counsel might take up in the House of Lords.

EARLY CLOSING.

Mr. THROSSELL next raised the question of early closing. He said this was the third meeting of the Association that he had attended, and, no one having raised the question of early closing, he wished to do so. In his opinion, there was no substantial reason in the nature of things why their ostensible hours of business should not be akin to those in other trades. It was hardly a sense of strict duty which kept so many of their shops open to all comers from the time of rising till late at night. They were all ready to attend to all cases of necessity at any hour of the day or night, and he had never yet heard of a case in which a patient died because his friends were too nervous to ring the chemist's private bell. But the public were beginning to see and acknowledge that the chemist had as just claim for leisure as the grocer or draper. It would be the dawn of a new era with chemists morally, mentally, and physically, could they universally agree to adopt shorter hours, and levy a mild percentage upon all business transacted after hours. He concluded by moving—

That this meeting affirms the necessity of earlier closing, and pledges itself by each of its members to favour a system of moderate hours.

Mr. LONG seconded the motion.

Mr. MACKENZIE thought this a matter for each one to carry out for himself. If everyone would look to his own door being shut at the proper time, all would be well. But, unfortunately, everybody looked down the street first to see if his neighbour was shut.

Mr. HAMPSON believed it depended very much upon the locality. But just at this time, when every penny made a

difference in a man's income, they could not do anything very practical.

Mr. URWICK said every man had the option of closing early if he liked. When he commenced in his neighbourhood the chemists kept open on Sundays, but he shut his shop every Sunday, and at 9 every evening, although his neighbours did not; but now they had all come round to it.

The PRESIDENT thought this rather a difficult question, and one which had better be left to localities. He suggested that the resolution should be framed thus:—

That this meeting agrees upon the desirability of its members adopting a system of earlier closing, and recommends its adoption as far as practicable.

Mr. THROSSELL agreed to adopt this form for his resolution, and on being put it was carried unanimously.

A vote of thanks to the President, moved by Mr. Urwick and seconded by Mr. Harrison, terminated the proceedings.

The Pharmaceutical Society.

COUNCIL MEETING, MAY 19, 1880.

A MEETING of the Pharmaceutical Council was held before the annual meeting to arrange the order of business. Mr. G. W. Sandford, President, in the chair. There were also present Mr. G. F. Schacht, Vice-President, and Messrs. Atkins, Bottle, Churchill, Frazer, Gostling, Greenish, Hampson, Hills, Mackay, Richardson, Robbins, Savage, Symes, and Williams.

A resolution expressing sympathy with the family of the late Mr. C. Cracknell, and appreciation of his services, was moved by the President, seconded by the Vice-President, and carried unanimously.

The President also read a letter which had been received from the Privy Council Office, enclosing one which had been received from a medical practitioner, who stated that a dipsomaniac patient of his had been supplied with narcotic drugs more freely than he thought was right, and adding that he had addressed the Pharmaceutical Society on the subject in vain. A reply to the Privy Council was agreed upon.

THE ANNUAL MEETING.

Members and associates in business assembled in the theatre at noon, and the room was well filled when the President took the chair. After the notice convening the meeting had been read by the Secretary,

The PRESIDENT gave a short address. Last year he had not expected, he said, to inflict himself again on the Society. It had been his wish to retire from the more active duty, and leave that to abler hands. But the Council had not allowed him to retire. They had again elected him to the proud position of President of the Society. In the 39 years which the Society had seen it had attained a high position. America and Australia had taken its constitution as a model, while their closer neighbours in Ireland had improved on their example, and had obtained more exclusive privileges in regard to the dispensing of medicines than they possessed. He believed that such might have been obtained here in 1868 if the trade had been united. Even now there seemed to be a tendency, as manifested in the public press, towards greater restriction. The exemption given by the Pharmacy Act in regard to patent medicines was being called in question. Appeals from public associations came to the Council, some of them desiring an impossible degree of stringency. He did not wish to mislead with vain hopes; he only wished to show the position the Society had attained. There had been much unmerited blame cast on the Council in reference to the indiscriminate sale of narcotic drugs, often in cases where they had no control. But in this matter chemists ought to recognise their responsibility, though the proscribed list should not be so extended as to destroy the value of the schedule and too much hamper themselves or their customers. The President claimed credit for the Society in the successful defence of a member in the "adulterated cream of tartar" case, and

briefly referred to his recent official visit to Edinburgh, and to the delight he had experienced at the meeting at Willis's Rooms the previous evening—an event which, he said, would have been impossible before the foundation of the Society.

The report was then taken as read. It is printed at the end of this report. Its adoption was moved by Mr. J. B. MACKEY, of London, very briefly, and seconded more at length by Mr. STACEY. This gentleman lightly criticised the conduct of the Council in reference to the admission of women to membership, and said he scarcely understood why it had been stated that the change did not threaten any important result in the constitution of the Society. He supposed the words were inserted merely as a *placebo*. He congratulated the Council on their determination to uphold the Pharmacy Act, and hoped they had acted wisely in going to the House of Lords. But when three of the first judges in the land had declared that the Act itself was a muddle, or at least very imperfect, it was evident that the amendment of that Act was a matter of the first importance. He thought they should be very cautious how they moved in the matter. The public hardly thanked them for preventing them from being poisoned, and if they tried to close co-operative stores they would come into collision with public opinion. He only wished to urge that they should not be too impulsive in going to the House of Lords with such cases. As to the last clause in the report, he hoped nothing more than the mere mention of it would be necessary to satisfy the want which had been shown to exist in the Benevolent Fund.

Mr. URWICK criticised the financial statement. He thought the Society was not laying by funds in proportion to its income. They had funded 3,388£ this year, but they had carried forward 3,405£. Perhaps this position might be due to the increased fees to examiners. He considered that either the examiners in past days had not had justice done to them, or else the present examiners received more than justice. The speaker next alluded, amid sympathetic applause, to the "stereotyped letter" sent by the Registrar to persons infringing the Pharmacy Act, and thought the course should not be invariably followed. He gave details of a case which had come under his own observation. A grocer in Pimlico received orders for medicines, and delivered them prepared the next day. Mr. Urwick exhibited a box of opium pills which had been so dispensed. The grocer had been written to by the Registrar, but he had not discontinued the practice. He sent the prescriptions to a chemist at Leytonstone, who actually dispensed them. It appeared afterwards that the grocer had written to the Registrar explaining what he was doing, and expressing belief that he was acting legally. Mr. Urwick thought the report might have referred to the subject of getting chemists to assist in the preparation of the Pharmacopoeia.

Mr. HOWARD HALL also criticised the report, referring to the admission of women, and afterwards to the financial management. He commented on the increase in the fee paid to examiners, which amounted to 580£ 18s. more than in the previous year. Referring to his experience as scrutineer last year, he commented on the waste of strength which had occurred in the fact that a large number of Liverpool members had plumped for a single candidate.

Mr. MACKENZIE (Edinburgh) thought that more should be found with the smallness of the expenditure with its excess. He especially referred to the fact that only 35£ had been spent on provincial education. If some of the money locked up in the funds were spent on education it would yield 100 instead of 3 per cent. He would ask next year for details of the item of 770£ for "costs and servants," which he thought seemed very great. He also expressed himself against the system of sending warning letters to all offenders against the Pharmacy Act, which he thought the Society had not yet become what should be—a terror to evil doers. They spent from 20 to 300£ a year in law expenses, and ought to get some more from it. A letter from the Solicitor would carry greater weight than one from the Secretary. He was surprised that the report did not mention the wider system of reporting which had been established. He urged that candidates who failed at the examinations should be told what subjects they had been unsuccessful, as was done by the Colleges of Physicians and Surgeons. The admission

women members had been decided on by the Council in face of an adverse vote of the Society on two different occasions. Without going into the merits of the case he thought majorities should have been better respected. He congratulated the President on his firmness in the matter. The declaration in the report that the election of members undoubtedly rested with the Council he thought rather smacked of Imperialism; it was as well to remember also that the election of the Council undoubtedly rested with the members.

Mr. UMNEY, as a former member of the Board of Examiners, defended the advance in the payment to the examiners. He said they had not only to give time to the examination itself, but must give special thought and attention to their subjects previously. There were half-a-dozen establishments in London where examiners who got into grooves could be gauged, and the questions they would ask anticipated.

A question arose about voting in the room. One member was about to drop several voting papers in the box, when he was stopped by the Secretary, and told he could only place his own therein. Mr. Andrews thereupon asked whether it was permissible for members present to hand in the voting papers of members absent. Mr. Flux, the Solicitor, read from the envelope accompanying the voting paper that it must be sent by post before a certain date, or delivered personally at the annual meeting. Mr. Andrews replied that he quite understood the meaning, but it had been taken to mean that it might be delivered personally by anyone. The President thought the meaning was quite clear.

Mr. POSTANS wished more members would join the Society, and went on to say that the Society could do certain work more appropriately than it could be done by the Birmingham Association. He instanced the discussion referring to the preparation of the Pharmacopœia.

Mr. WHITTLE objected to the admission of women to the Society, and also urged that members should have more chance of knowing something more about new candidates for the Council.

Mr. BARCLAY, in reply to Mr. Postans, said that the Birmingham Association had not contemplated taking any part in the preparation of the Pharmacopœia. All they had one was to urge action on the part of the Pharmaceutical Society. He congratulated the Council on their decision to carry their law suit to the House of Lords. He was not afraid of public opinion.

Mr. BROWN (Greenwich) asked if the Council were aware that at least one of the judges who had decided the appeal case was himself interested in a co-operative store. The PRESIDENT did not think the Society could impeach the judges.

The PRESIDENT then replied to some of the questions which had been raised. He read the letter which had been sent by the Pimlico grocer, explaining that he was only acting as agent for a chemist and druggist. The proposition of candidates examined in London and Edinburgh had been previously published, but he gave them again. As law expenses the Society had much more legal work going than was made public. As to telling candidates on what subjects they had failed it was often his unpleasant duty, as President, to give that information.

The adoption of the report was then carried.

A short discussion followed in reference to the remark made by Mr. Howard Hall as to the plumpers from Liverpool. Mr. Mackay asked how Mr. Hall knew that these plumpers came from Liverpool. It appeared that previously plumpers from each locality were kept by themselves for the convenience of scrutiny, but the Secretary said this would be no more. Mr. Symes said that certainly all the papers from Liverpool were not plumpers, for he himself had voted for a good many gentlemen. He was especially obliged to those of his friends and neighbours who had shown him the mark of their confidence, but he found on reference that he had received 1,270 votes altogether, and certainly not more than 100 had come from Liverpool. He had been elected for the country, and like all other members of the Council endeavoured to represent the interests of the whole of the trade.

In the course of this discussion Mr. BARCLAY advocated a different system of taking the votes should be adopted. He urged that all votes should be sent by post to some pro-

fessional auditors previous to the meeting, and that the result should be announced at the meeting.

Subsequently scrutineers were appointed, and, after the usual votes of thanks, the meeting was adjourned until the 21st, when the following report was handed in by Mr. W. K. Hopkin, chairman of the scrutineers.

Voting papers reported by the Secretary			
to have been issued	...	...	3650
Voting papers received	...	...	1907
Voting papers issued but not returned...			1743
Voting papers received			1907
Voting papers disallowed:—			
Informal, having more than 14 names	...	...	4
Received by post too late	...	...	77
Envelopes unsigned by voters	...	...	16
			97
Voting papers registered			1810

Result of the Poll.

Sehacht	...	1614	Frazer	...	1389
Symes	...	1588	Squire	...	1358
Hampson	...	1570	Andrews	...	1048
Savage	...	1564	Radley	...	1043
Greenish	...	1551			
Mackay	...	1541	Spink	...	995
Hills	...	1535	Postans	...	847
Gostling	...	1492	Shepperley	...	681
Sandford	...	1461	Wills	...	579
Atkins	...	1422			

AUDITORS.

There being only the requisite number of candidates (five) for the office of auditors, the chairman declared the following duly elected for the ensuing twelve months:—

HODGKINSON, WILLIAM, 127 Aldersgate Street, E.C.

LESCHER, FRANK HARWOOD, 60 Bartholomew Close, E.C.

STACEY, SAMUEL LLOYD, 300 High Holborn, W.C.

THOMPSON, HENRY AYSOUGH, 22 Worship Street, E.C.

WATTS, WILLIAM MANNING, 32 Lower Whitecross Street, E.C.

FINANCIAL STATEMENT FROM JAN. 1 TO DEC. 31, 1879.

Receipts.

	£	s.	d.	£	s.	d.
Balance in Treasurer's hands, January 1, 1879				1,905	15	5
London and Westminster Bank—On deposit..				1,500	0	0
Life Members' Fund—Interest	88	2	6			
Fee	21	0	0			
				109	2	6
Government Securities—Interest				543	8	10
Deposit Note—Interest				44	7	8
Subscriptions:—						
1,741 Members, Pharmaceutical Chemists..	1,828	1	0			
812 " Chemists and Druggists ..	852	12	0			
966 Associates in business	1,014	6	0			
827 Associates not in business	434	3	6			
1,071 Apprentices or Students	562	5	6			
19 Entrance Fees	39	18	0			
	4,731	6	0			
Fines upon restoration to the Society..	60	1	9	4,791	7	9
Examination Fees:—						
1,480 Preliminary Examination Fees ..	2,658	14	0			
31 Modified "	32	11	0			
666 Minor "	1,859	17	0			
135 Major "	623	14	0			
	5,174	16	0			
Registration Fees:—						
22 Registration Fees as Chemists and				115	10	0
Druggists				21	0	0
20 Fees for restoration to the Register ..						
				136	10	0
Balance due to Secretary, December 31, 1878				22	10	7
				14,227	18	9

Expenditure.

	£	s.	d.	£	s.	d.
Balance due Hon. Secretary N.B. Branch, Jan. 1, 1879				53	8	8
Balance due to Secretary, January 1, 1879 ..				17	8	5
Annuity Dr. Redwood				100	0	0
Carriage of books to or from the Library, and other parcels				17	8	8
Certificates of death				17	10	4
Conversazione	111	0	0			
Pharmaceutical meetings	73	5	10			
				184	5	10
Examiners, Boards of—						
<i>England</i>						
<i>and Wales</i>						
<i>Scotland</i>						
Fees to examiners	1,200	3	0	337	1	0
Fees to superintendents — Prelim. examination	142	16	0	19	19	0
Hire of rooms for conducting prelim. examination	44	1	6	3	12	0
Travelling expenses	133	17	0	14	19	10
Refreshments for examiners	81	7	3	7	1	2
Apparatus, drugs, chemicals, for ex- aminations and sundry charges in connection therewith	86	5	7	26	8	11
				4 ⁰⁹	1	11
				1,688	10	4
				2,097	12	3
Fees to the College of Preceptors				154	7	0
Fixtures and fittings				2,251	19	3
Furniture				139	12	0
House expenses				11	15	0
Journal — Balance of Account, including 618 <i>l.</i> 1 <i>s.</i> 2 <i>d.</i> , Postage to Members and others				281	6	9
Laboratory:—				749	4	11
Professor of Practical Chemistry—Endow- ment of chair				100	0	0
Prize medals, &c.				5	12	6
				105	12	6
Law Charges				273	19	7
Lectures:—						
Professor of Chemistry and Pharmacy— Endowment of chair				100	0	0
Professor of Botany and Materia Medica— Endowment of chair				100	0	0
Subscription to Royal Botanic Gardens				21	0	0
Prize medals, &c.				14	6	3
				235	16	3
Library:—						
Librarian's salary				200	0	0
Purchase of books, &c.				126	3	11
				326	3	11
Purchase of books, &c.—Hanbury Fund ..				40	13	0
Museum:—						
Curator's salary				200	0	0
Temporary assistant's salary				50	0	0
Specimens, bottles, and sundries				143	19	6
				393	19	6
Branch of the Society in Scotland:—						
Assistant-secretary in Scotland—Salary ..				150	0	0
Current expenses				153	9	2
				303	9	2
Postage				206	4	0
Provincial education, grant in aid of				35	0	0
Register				35	17	0
Repairs and alterations				225	8	0
Rent, taxes, and insurance of plate glass ..				404	3	2
Returned subscriptions to Associates				24	3	0
Stationery, engraving, printing, and office expenses				434	8	11
Salaries:—						
Secretary and Registrar:—						
Salary				450	0	0
Rent				100	0	0
				550	0	0
Assistant-secretary				300	0	0
Clerks and servants				770	13	6
				1,620	13	6
Cost of materials supplied to the Bell Scholars ..				10	0	0
Council prizes and herbaria medals				9	17	6
Sundries				7	17	9
Travelling expenses—country members of Council				343	13	3
Refreshments for Council				39	9	2
Purchase of 3,500 <i>l.</i> New Three per Cents ..				3,388	15	0
Balance, December 31, 1879:—						
In Treasurer's hands	1,390	4	5			
London & Westminster Bank, On deposit ..	500	0	0			
In Hon. Secretary's hands, N.B. Branch ..	43	0	4			
				1,933	4	9
				£14,227	18	9

The Benevolent Fund account showed an income from dividends amounting to 543*l.* 15*s.*; from donations, 55*l.* 5*s.*;

and from subscriptions, 1,200*l.* 2*s.* 8*d.* The sum of 948*l.* 15*s.* was paid to annuitants, 698*l.* 10*s.* had been distributed in casual grants, while printing, stationery, and postage had cost 43*l.* 17*s.* 3*d.* The amount of the Benevolent Fund invested in Consols was 18,250*l.*

The amount of the General Funds of the Society, including the Life Members' Fund, invested in New Three per Cents, is 23,500*l.*

The report was as follows:—

Shortly after the last Annual Meeting, the Council deemed it advisable to settle the vexed question of the admission of women to the Pharmaceutical Society. On the two occasions when this question was submitted to the General Meeting, the expression of opinion was so evenly balanced that it appeared likely to continue a source of contention. The election of members undoubtedly rests with the Council, but in former years the opinion of the Council, like that of the Society, was so evenly divided that an appeal to the general body was deemed desirable. This change does not threaten any important result in the constitution of the Society; up to this time only four ladies have been admitted.

It is gratifying to observe in the Financial Report presented herewith that the increase in the revenue of the Society has continued. The increased revenue has been largely due to the greater number of candidates both for the Preliminary and Major examinations. An unusually large balance (3,405*l.* 15*s.* 5*d.*) was brought forward at the end of 1878, the Council were thus enabled in 1879 to purchase 3,500*l.* New Three per Cent. Stock. In the last Report a regret was expressed that so many candidates for examination were satisfied to remain in the second grade of the Society. During the year 1879 one hundred and thirty-four candidates presented themselves for the Major examination, whereas in the previous year there were but eighty-one. In the Preliminary examination there was an increase of three hundred and forty-four candidates, of whom the great majority were not more than eighteen years of age. The Council infer from this that the importance of passing the Preliminary examination prior to connection with the trade, the desirability of which has been so constantly urged, is now more generally recognised.

With a view of insuring the identity of the examinations in London and Edinburgh, the importance of which cannot be too strongly urged, the President and Vice-President, with three members of the Board of Examiners for England and Wales, were deputed to be present at the examinations held last month at the North British Branch, and will in due course report the impression made on them. Their report not having yet been formally presented, it is beyond the power of your Council to enter more fully on the subject in this summary of the proceedings of the past year. There is, however, no doubt that the two examinations are conducted with equal care.

The Library, now containing about 7,000 volumes, has constantly engaged the attention of the Council. From month to month, on the presentation of the Librarian's report, books which have been recommended by members and others entitled to use the library have, on the approval of the Committee, been purchased. A selection is also made from books submitted by publishers, and many others have been presented. A new catalogue of the library, including also that of the North British Branch, is in the press, and will be sent to all members and associates in business of the Society. Associates and apprentices of the Society will be supplied with copies on application.

An index of the ten volumes of the *Pharmaceutical Journal*, from July, 1868, to June, 1878, has been compiled and printed; each member and associate of the Society is entitled to receive a copy thereof, free of charge, on application to the Secretary.

It will be remembered that the late Daniel Hanbury bequeathed a legacy to enrich the library of the Pharmaceutical Society. The Council decided that this bequest should be applied to the purchase of standard works of reference not to be circulated, but to remain permanently in the library.

The formal acceptance by the Council of the Hanbury Memorial Fund Trust has been completed; the amount invested is 400*l.* Consols, and a die has been prepared for

medal which is to be offered for competition every two years "for high excellence in the prosecution or promotion of original research in the natural history and chemistry of drugs."

During the year many valuable additions have been made to the Museum. When it was determined by Government to break up the India Museum, this Council, feeling that many specimens of *materia medica* and matters allied thereto contained in that collection would be not only extremely valuable, but specially accessible to persons interested in them if placed in the museum of this Society, so represented the matter to the Secretary of State for India, hoping that he would, if possible, secure the transfer of such articles to Bloomsbury Square. Ultimately it was decided that the whole vegetable collection should be sent to Kew to be under the sole control of the Director of the Museum there, and the applications which had been made to the India Office were transferred to the same authority for consideration. Through the kindness of Sir Joseph Hooker, the Director of the Royal Gardens, Kew, this Society has already received many interesting specimens, and there is reason to believe that more will follow.

The Evening Meetings, both in London and Edinburgh, in the papers read and the discussions which followed, have afforded opportunities for the consideration of various interesting matters. The meeting held in London in December was specially devoted to discussion on the new regulations regarding apothecaries' weights and measures set forth in the Weights and Measures Act, 1878.

When the new Act was passed, the use of apothecaries' weights and measures in the sale of drugs was legalised, but no definition or schedule of them was appended to the Act. Under these circumstances, in January, 1879, the Board of Trade applied to this Society for general information as to apothecaries' weights and measures. A full description of them was thereupon forwarded to the Board of Trade by the President, and an "Order in Council" founded thereon has since been issued. Considerable delay has arisen in preparing the standards. They are, however, now ready and in the hands of many local inspectors. Every consideration has been shown by the authorities to chemists and druggists in this matter, and there is certainly no disposition to bring the provisions of the Act into operation hurriedly or harshly. Nevertheless it is of course desirable that chemists should put themselves in conformity with the law, and the difficulty of so doing has ceased, the makers of apothecaries' weights and graduated measures being now able to supply both with the Government mark of verification.

A large number of complaints of alleged infringements of the Pharmacy Act, 1868, were received by the Registrar in 1879. In all cases inquiries were made, and communication with the offenders opened. The result generally was discontinuance of the offence, but in 21 cases it was found necessary to have recourse to legal proceedings to enforce obedience to the law.

The question of the legality of the sale and dispensing of poisons by public companies (called in legal language "corporations"), involved in the prosecution of the "London and Provincial Supply Association," which was in abeyance the time of the last annual meeting, is still unsettled. The Bloomsbury County Court having decided that such a practice was legal, so long as a qualified man was employed to superintend the business, the Pharmaceutical Society appealed against that judgment to the Court of Queen's Bench, where the decision of the lower Court was reversed. No less authority than the Lord Chief Justice of England and Mr. Justice Mellor. On the appeal of the defendant, however, the case was carried to a higher Court, in which, all must have observed from the reports in the Journal, decision has been given adverse to this Society. The case is so important that the Council have felt it their duty to continue proceedings, and have instituted a final appeal to the House of Lords. The Council have been fortified in their resolution to take this course, not only by certain able remarks embodied in the report of the judgment of the Lord Chief Justice, who decided in favour of this Society, but also by doubts expressed in the separate judgments delivered by the Lords Justices Bramwell, Baggallay, and Stanger in giving an adverse decision.

In 1879 the subscriptions and donations to the Benevolent

Fund fell short of those received in the previous year by about 40%. The Council are inclined to attribute this to the general depression of the year rather than to a decrease of interest in the prosperity of a fund which is doing so much to relieve the necessities of unfortunate members of the trade. Year by year the permanent engagements of the fund increase by the addition to the number of annuitants. In determining the number to be elected on the last occasion, it was painful to the Council to be obliged, from want of funds, to restrict it to three, there being several other approved candidates on the list. The amount granted in casual relief in 1879 was 698*l.* 10*s.* It may be added that in the present year the amount required for annuities is 1,015*l.*, and presuming that the occasional grants will not be less than formerly, the expenditure will be upwards of 1,700*l.*

THE PHARMACEUTICAL DINNER.

THE Ninth Annual Dinner of the Pharmaceutical Society was held at Willis's Rooms on May 18, under the presidency of Mr. G. W. Sandford. Mr. F. J. Gant (President of the Medical Society) sat on the right of the chair, and Professor Roscoe (President of the Chemical Society) on the left. There were also present as guests, Dr. B. W. Richardson, Professor Frankland, Mr. W. Crookes, Mr. Ernest Hart, Dr. Greenhow, Dr. Buchanan, Mr. Wyndham Cottle, and other members of the medical profession.

Dinner over, the President proposed the toasts of "The Queen," "The Prince of Wales," and "The Army, Navy, and Reserve Forces." With the latter he associated the name of Captain Richardson, of Leicester.

Captain RICHARDSON, in responding, referred to the gallant services rendered by the medical staff at Rorke's Drift, and on other occasions in the Zulu War, and he further remarked on the assistance which in late years the art of war had obtained from the science of chemistry.

The VICE-PRESIDENT (Mr. G. F. Schacht), in proposing the toast of "Science," claimed that pharmacy was established on a scientific foundation, and added that in all parts of the country were to be found pharmacists who obtained their chief delight from scientific pursuits. He coupled with the toast the name of Professor Roscoe, of whom he remarked that he was not only distinguished as a chemist and a physicist, but also as the principal organiser of Owens College, Manchester, one of the most successful scientific experiments of modern times.

Professor ROSCOE, in reply, briefly sketched the advance which scientific occupations had made in public appreciation within the past 25 years.

The "Medical Profession" was proposed by the President, and replied to by Mr. F. J. GANT. The latter said that, as President of the Medical Society, he represented all sections of the profession. That Society was now in its second century. The speaker then proceeded to speak of the public opposition to vivisection, and argued that patients who objected to vivisection should, to be consistent, decline to avail themselves of the results attained by vivisection.

Dr. B. W. RICHARDSON next, in eloquent terms, proposed "Continued Prosperity to the Pharmaceutical Society." He described the aid that pharmacists had rendered to medical investigators, particularly referring to the search after anæsthetics. Sir James Simpson had been greatly aided by Messrs. Duncan & Flockhart, of Edinburgh, Dr. Snow had obtained assistance from Mr. Lloyd Bullock, and he himself was under peculiar obligations to Mr. Robbins, a member of the Council, whom he hoped one day to see in the presidential chair. To Mr. Williams also, a chemist in the truest sense of the word, he was also indebted. Pharmacy is the fourth estate of medicine. The physician, the surgeon, the obstetrician cannot do without the aid of the pharmacist. The further they advance the more they require that the pharmacist should meet their increasing demands. He hoped the day would come when pharmacy would enter the pale of medicine altogether, become professional in the strictest sense of the word, and each member obtain the opportunity of rising to the highest attainable position in a common profession.

The President replied to this toast, and proposed "The Visitors," which was responded to by Dr. Buchanan.

Between the speeches part-songs and solos were given by Miss Julia Elton, Miss Agnes Larcum, Mr. Montem Smith and Winn.

The company altogether numbered about 120. The speeches were over about 10.30, and about another hour was spent in general conversation in the coffee-room.

THE CONVERSAZIONE.

The *conversazione* of the Pharmaceutical Society was held in the South Kensington Museum on May 19. The President, Vice-President, and several members of the Council received the guests, who numbered between 2,000 and 3,000. A portion of the Museum was lighted by electricity, and elsewhere a military band performed at intervals. In the lecture theatre a programme of glees and madrigals was performed, and refreshments were also provided.

The Pharmaceutical Council.

JUNE 2, 1880.

MR. G. W. SANDFORD, President, in the chair. All the members of the Council were present except Mr. Mackay. Messrs. Andrews and Radley, the newly-elected members, took seats at the table.

The SECRETARY read the minutes of the meetings of Council held on May 5 and 19. The reading occupied rather more than half-an-hour, and on its conclusion Mr. Atkins suggested the possibility of somewhat shortening this formality by mentioning letters recorded without reading them in full. Mr. Richardson concurred in the suggestion, and thought there was no legal necessity to read such letters in full.

DEATH OF MR. STODDART.

The PRESIDENT said his first duty in the ordinary course would now be to ask the Council to elect a successor to himself, but he deeply regretted to have to inform the Council that he had heard from Mr. Schacht that morning that their old friend Mr. Stoddart had died on the previous day. Mr. Stoddart had been one of the brightest ornaments of the Pharmaceutical Society. He had been associated with him for eight years on the Council, and could not but feel deeply grieved to hear of his death. For the past few years his occupations had to some extent separated him from themselves, but all would agree that he had in all his works advanced the honour and dignity of the Pharmaceutical Society. He felt sure that it would be the unanimous wish of the Council to send an address of condolence to Mrs. Stoddart and her family.

MR. SCHACHT rose to second the suggestion of the President. He was sure that in regard to it there could be but one feeling. The speaker was much affected, and only added that he should perhaps best consult the feeling of the Council if he simply seconded the proposal of the President.

The announcement was received with much emotion by the Council generally.

ELECTION OF OFFICERS.

The PRESIDENT said he would next ask the Council to proceed to the election of a President. In reply to Mr. Atkins, he said his decision to decline re-election was absolute and final.

The votes being taken it was announced that 19 were given for Mr. Greenish and 1 for Mr. Sandford.

The PRESIDENT said the election was practically unanimous, for in the one opposing vote he recognised the handwriting of Mr. Greenish himself. He had much pleasure in handing to Mr. Greenish the seals of his office.

THE NEW PRESIDENT.

MR. GREENISH then took the presidential chair. In doing so he said he was bigbly sensible of the honour conferred upon him. He was sure it must be a source of pain to every

member of the Council to know that failing health should have compelled the retirement of one so conversant with the affairs of the Society. In accepting the responsibility of the presidency he was pleased to know that Mr. Sandford would always be as willing to assist him with his advice as he should be to take advantage of it. As

VICE-PRESIDENT

Mr. Schacht was re-elected by 18 votes to 1 for Mr. Hampson and 1 for Mr. Mackay. The President, in announcing the result, said he was very glad that he should be supported by so able a Vice-President.

MR. SCHACHT briefly returned thanks.

The election for

TREASURER

Resulted as follows:—Robbins, 8; Hampson, 6; Hills, 3; Williams, 3; Bottle, 1.

MR. ROBBINS, in acknowledging the vote, said he had not expected it or he should have been prepared with a pretty little speech.

THE EX-PRESIDENT.

MR. BOTTLE said he was sure the Council would wish to record in the minutes the testimony of their appreciation of the services which Mr. Sandford had rendered them as President. He almost feared to say how many years he had served with Mr. Sandford on the Council. It must be nearly 30 years. He knew it was over 20 years. He had always experienced the greatest kindness from Mr. Sandford, and he was sure that the Council recognised the immense service Mr. Sandford had rendered. He regretted that they were to lose him as President—should he say through age? He certainly would not say through old age, for he considered that the old horse had a great deal of go in him yet. Still, after the express manner in which Mr. Sandford had intimated his desire to be relieved from his office, it was felt that they could not press him to retain the presidency. He moved a resolution recording the best thanks of the Council for the services which Mr. Sandford had rendered as President.

MR. SAVAGE, as another old member of the Council, wished to add his testimony to the remarks which had been made by Mr. Bottle. There had been occasionally differences of opinion between the President and the members, but there had never been a more efficient President of the Society.

MR. SCHACHT also, as the latest assistant to the President, begged to be allowed to testify to the kindness and courtesy of the retiring President. They had sometimes differed, but Mr. Sandford had never borne him the smallest grudge for any contrary opinion which he might have held. He had always conceded a right to differ from him to his Vice-President.

MR. FRAZER, as representing the North, wished to support what had been said. When he was first returned to the Council he made it his business to call on Mr. Sandford and make his acquaintance privately, and he recalled with pleasure the kind manner in which that gentleman had instructed the raw youth from the country.

MR. SYMES, as representing the recent members of the Council, would like to add his testimony to the uniform courtesy which the retiring President had invariably shown. All who had had occasion to differ from him had experienced a remarkable degree of forbearance from him, which he had often shown under trying conditions.

The PRESIDENT said he had only one objection to what had been said, and that was that it almost seemed as if they were to lose the services of Mr. Sandford on the Council. For himself he expected a considerable amount of work yet from him. He had often told Mr. Sandford that he was obstinate, but all recognised his courtesy.

MR. SANDFORD said it would ill become him to occupy the time of the Council much longer, but he must express his gratitude for the kind remarks which had been made. He knew that at times he had been somewhat obstinate, but was glad that those who differed from him were able to say that they had found him courteous. Of course, there would be, and should be, differences of opinion among 21 men who met to discuss the affairs of the Society. He was delighted to see his friend Mr. Greenish in the chair. He was sure he would conduct the business of the Society more ably than he himself had done, and though he did not think he would

want it, he should always be glad to render any assistance in his power. He desired to correct a statement which had been made to the effect that he was in failing health. This was not the case. He was certainly advancing in years, and he thought that the time had arrived when he might ask for a little more leisure.

After a vote of thanks to the Vice-President for his services during the past year

MR. ELIAS BREMRIDGE

Was re-appointed Secretary and Registrar, and Mr. Richard Bremridge was re-appointed Assistant Secretary and Deputy Registrar.

The standing orders were agreed to for the year, and the election of the members and associates was next proceeded with.

NEW NAMES ON THE REGISTER.

The REGISTRAR informed the Council that he had added to the register the name of Thomas Manning, Harlesden, Norfolk. The appeal to the Council in the case of a person who had been refused admission to the register by the Registrar was next taken in committee, and when the papers had been considered the Council resumed, when Mr. Sandford moved, and Mr. Woolley seconded, that the name of Joseph Robinson Lund, of Bradford, should be added to the register.

The appointment of local secretaries was referred to the Library, Museum, and Laboratory Committee.

COMMITTEES.

The appointment of Committees was next proceeded with, and after a great deal of discussion these were arranged as follows:—

Finance.—Messrs. Andrews, Gostling, Richardson, Savage, Squire, and Symes.

Library, Museum, and Laboratory.—Messrs. Andrews, Bottle, Hampson, Hills, Richardson, Robbins, Sandford, Squire, and Williams. The same Committee to be also House Committee.

Benevolent Fund.—Messrs. Bottle, Churchill, Hampson, Hills, Mackay, Radley, Robbins, Sandford, Shaw, Williams, and Woolley.

Pharmacy Act Amendment.—Messrs. Andrews, Bottle, Hampson, Mackay, Squire, Symes, Williams, and Woolley.

General Purposes.—The entire Council.

The President and Vice-President to be members of every committee.

As a result of a discussion which took place in secret last month it had been decided to appoint a Committee to inquire into the condition of the Society's school. This Committee was now formed as follows:—The President and Vice-President, Messrs. Andrews, Bottle, Hills, Sandford, Squire, Williams, and Woolley.

THE SESSIONAL ADDRESS.

The Council went into committee to consider the names of gentlemen who might be nominated to deliver the inaugural address in October next.

REPORTERS IN THE COUNCIL.

The Council next went into committee to consider a motion of which notice had been given last month by Mr. Sandford, "That the Society's reporter should leave the council-room when press reporters are excluded." The reporters were requested to leave while this motion was discussed. On returning they were informed that the Council had unanimously resolved that the representative of THE CHEMIST AND DRUGGIST should be placed on the same footing as the reporter for the *Pharmaceutical Journal*.

PHARMACEUTICAL EDUCATION AND PHARMACEUTICAL EXAMINATIONS.

Mr. SCHACHT then rose, in pursuance of notice, to move the following resolution:—

That a Special Committee be appointed to inquire into and consider the relation to each other of pharmaceutical education and the pharmaceutical examinations; and that they be empowered to invite the co-operation of any members of the two Boards of Examiners, of the professional staff, or other individuals whose opinions and advice they may deem it desirable to obtain; and that they be requested to frame a report to the Council on the subject at their earliest convenience.

He said that he first wished to make it quite clear that in moving for this Committee he had no hidden convictions as to what it might lead to. That he introduced the motion was the result of his duties during the past year. In his capacity as Vice-President, and through the kindness of his chief, he had been permitted to divide the duties which fall to the President and Vice-President in the examination-room. It was almost unnecessary to say, but it would be a pleasure for him to say it, that, in his opinion, the standard of these examinations was as nearly as possible perfect. He also paid a tribute to the ability and the kind spirit in which the individual examiners conducted their so-called "torture." There was, however, one respect in which the examinations could not be regarded with so much satisfaction, and that was in the condition of unpreparedness in which some of the candidates presented themselves. Some of them were so hopelessly, sadly, surprisingly ignorant of the subjects in which they were to be examined that one could but be astonished at their audacity in offering themselves. A very few minutes suffice to show the examiners the calibre of this class. Another section come evidently well grounded in their subjects, and there is very little difficulty in dealing with these. But there is a third section, and with these there is a great difficulty to ascertain whether they really did or did not know the subjects on which they were questioned. Some seemed to be really informed, but others seemed endowed with amazing powers of deception, and they employed really remarkable artfulness and skill in their efforts to baffle the examiners. He was sorry to say that this class was a rather large one. They know that they do not know much, but they devote all their energies to the art of deception. The examiners were conscientiously anxious to do their duty, and to act fairly with the candidates, and these men were a great source of difficulty to them. It had occurred to him that by the appointment of a Committee some process might be devised which should strengthen the hands of the examiners, and should eventually serve the interests of the young men themselves who were thus making superficial knowledge take the place of real knowledge. If it were possible by any means to check this system, they would not be acting unjustly towards these candidates, but really with the greatest possible kindness. It was in this spirit that he proposed the appointment of this Committee of Inquiry. He would again remark that it was not with the desire of carrying out any preconceived ideas that he desired this Committee. But he thought that the desirability of considering the matter would commend itself to the Council if they thought that his interpretation of his twelve months' experience was correct; if he wrongly interpreted the facts which had come before him, it was time that it should be proved that he was not a careful observer.

Mr. SYMES seconded the motion. The experience of Mr. Schacht, and no doubt that of the President also, had led to the conclusion that the present examinations, however well conducted, did not thoroughly test the merits of the candidates. No doubt examinations did to a greater or less extent point the direction of education, but he took it that the majority of those who came up and fearlessly presented themselves, and creditably passed the examinations, were not those who had studied for examination, but had studied for the love of knowledge and for the sake of the advantages which they knew such knowledge would give them in after life. Of course, if young men would consider the subject in a right light they would seek to acquire a good foundation in their studies, but it was unfortunately true that they would not look at it in this light, but spent the time which they ought to pass in study in acquiring certain tricks to deceive the examiners. It was their duty to ascertain if any further means could be devised to test the competence of candidates. He went with Mr. Schacht in desiring that the Committee should work on a broad basis. A certain scheme had been put forward, and had been endorsed by a large number of the Council and of the Boards of Examiners, but he supported Mr. Schacht's proposition that the Committee should investigate the whole subject on a broad basis.

Mr. HAMPSON regretted that this resolution should have been brought forward, especially as another Committee had been that day appointed on somewhat similar lines. The only object of this motion was to bring about an enforced

curriculum. Whether that was the object desired or not, they all knew that that was the necessary solution. He would not then express an opinion whether the time for enforcing a curriculum had yet arrived or not, but he would remind the Council that they had not had any complaints from the examiners themselves. They had not said that they were unable to distinguish the capable candidates from the incapable ones, and he thought that if such were the case the examiners, as conscientious men, would have felt it to be their duty to bring the complaint before the Council. This was the result of the pamphlet which Professor Attfield had circulated. He repeated that it was unfortunate that this resolution should have been offered just at a time when a Committee had been appointed which would have to judge of the very existence of their school.

Mr. GOSTLING also thought it would be wiser to wait until the report of the new Committee had been given in. No doubt all would agree with the statement which had been made by Mr. Schacht, but he should vote against the motion until they had received the report from the other Committee.

Mr. ATKINS took a similar view. While recognising the fairness with which the Vice-President had placed the results of his twelve months' experience before them, he presumed that what he really had in his mind was the education preceding the examination. He had read the pamphlet which Professor Attfield had sent him, and had expressed a careful opinion on it, but before they, as a Council, decided to initiate a costly compulsory curriculum, they had to inquire whether the condition of the trade authorised it. The question of the expenditure on education might not be a pressing one in fine select businesses, but in hundreds of businesses in the country the balance of the value of the trade against the cost of preparing for it was not on the right side.

Mr. WILLIAMS, while admitting that many candidates not properly qualified might pass, saw great difficulty in departing from the present system of examining any who presented themselves. It had been considered that the requirements of apprenticeship would render a curriculum unnecessary. Evidently apprenticeship had proved inefficient. But were they to abandon their requirement of apprenticeship? They must remember, too, that conditions which might suit the South might be against the interests of the trade in North Britain. He regretted that Mr. Frazer had left, and that Mr. Mackay was not present to assist in this discussion. He believed their present Act of Parliament would not permit them to enforce a curriculum. By it the examiners were "empowered and required to examine all such persons as shall tender themselves for examination." He knew that such a regulation as was suggested would be likely to improve the candidates themselves, but he questioned whether its promotion would be popular just now with the trade or the public. If they made entrance into the trade more costly it might be a benefit to those who could take advantage of the opportunity, but he was not quite prepared to take a step which would have the effect of preventing the entrance of the less wealthy into the trade.

Mr. ANDREWS said that perhaps, as a young member, he would do better to give a silent vote, but, as he had for years taken a great interest in this subject, he claimed permission to say a word or two. He was sure that they would have to deal with the cramming system sooner or later, but he saw objections to appointing this Committee while another, working on an allied subject, was sitting. Could not the question be referred to the same Committee?

Mr. SAVAGE remarked that whatever was done they would always find a somewhat similar condition of affairs. They had enforced curricula for the College of Physicians and Surgeons, and yet they met with workers and non-workers among the students for their diplomas.

Mr. SANDFORD, while agreeing as to the advantage which would result both to the examiner and to the student himself from the fact of his having been in a good school previous to examination, feared the time had not yet come to establish a curriculum. In 1852 and in 1868 enforced curricula were in disfavour with the public. But recent correspondence in the leading journals showed that opinion was gradually coming round to the belief that mere examination was not quite sufficient as a test of competence. Still he feared that public opinion would be opposed to any

attempt to make entrance into the trade more expensive. He appealed to Mr. Schacht to postpone his motion, at least until after the report of the other Committee had been received.

Mr. BOTTLE thought they had been rather begging the question. They had argued against a curriculum, though Mr. Schacht's motion was merely for a committee of inquiry. They were thinking of applying for an Amended Act, and if it should prove that the Committee concluded that a curriculum was desirable it would certainly be advisable that they should be prepared in good time to include that in any Amended Act they might go for.

Mr. SYMES wished to say that in seconding the proposition he had not committed himself to any definite course. He thought the Council had been doing to some degree the work of the Committee. The question for the Committee to consider was what was desirable to be done, and he thought they ought to consider that unfettered by any foregone conclusion.

Mr. RADLEY, while he believed the feeling of the country just now would be opposed to making the examinations stricter, or to any additions to the present requirements, would be disposed to vote for the motion in order to stimulate discussion by the trade.

Mr. SCHACHT, in reply, said he had no reason to complain of the course of the debate as long as it was understood, as Mr. Symes had said, that the proposal was only for a committee to inquire into the matter. He objected, however, to the insinuation, or rather the assumption in argument, that he was necessarily advocating an enforced curriculum. His motion was not the outcome of the pamphlet which had been referred to. The boards of examiners had certainly very distinctly, if not officially, expressed their views on this subject. The Committee of the Council which visited Scotland had received a very distinct intimation of the views of the examiners there. It had been urged that an amendment of the Pharmacy Act would be necessary if an enforced curriculum should be considered necessary. But since the passing of the act the Council had made a requirement of a three years' apprenticeship. He did not know whether in making that stipulation they had acted illegally. But at least, if it should prove that the Committee should recommend an enforced curriculum, and the Act did not need amendment, it was very much better that they should proceed to obtain their information in the quiet way which should precede legislation. He did not see that the other committee at all covered the ground which he proposed to cover. By voting for this motion they would only commit themselves to a motion for a full inquiry.

On a division the following seven voted for Mr. Schacht's motion:—Messrs. Bottle, Churchill, Radley, Robbins, Schacht, Symes, and Woolley.

Against, six:—Messrs. Andrews, Gostling, Hampson, Hills, Sandford, and Williams.

The President and Messrs. Savage and Squire were present but did not vote.

The following Committee was then appointed:—The President, Vice-President, and Messrs. Atkins, Hampson, Mackay, Sandford, and Symes.

A letter which had been addressed to the Council by Professor Attfield on this subject was referred to the Committee.

SALE OF PATENT MEDICINES.

A resolution passed by the Wigan Chemists and Druggists Association, urging the repeal of the patent medicine exemption clause of the Pharmacy Act, was read.

THE wife of a druggist in Philadelphia is mentioned in *Cassell's Family Magazine*, whose luxuriant *chevelure* is almost as long as that of another mentioned whose hair measures 7 feet 6 inches long. That of the druggist's wife is so thick, that when seated upon a chair she can completely cover herself with it.

IF THIS SORT OF THING IS KEPT UP CHEMISTRY WILL SOON BE SOLVED INTO ONE WORD.—A report of the *Berliner Chemische Gesellschaft* contains a note on the production of tetramethyldiamidodiphenylmethane and naphthyldimethylamidophenylsulphon. If the latter is heated with nitric acid, pentanitrimethyl anilin and nitronaphthalinsulphate are produced.

The Pharmaceutical Exhibition.

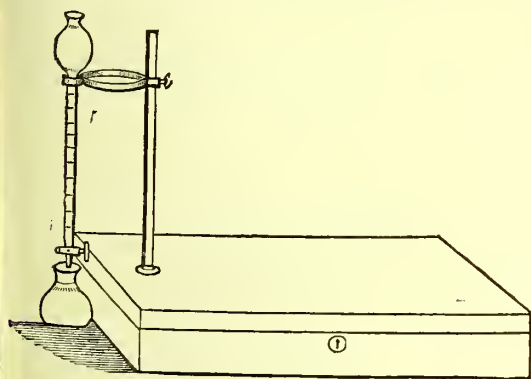
THE exhibition of chemical and pharmaceutical apparatus, held in the rooms of the Pharmaceutical Society on the 18th, 19th, and 20th of May, was an unqualified success. No exact record of the attendance was taken, but judging from the number of catalogues distributed, and from other data, it was estimated that about 500 chemists visited the rooms. We have heard, too, that many of the exhibitors had fair reason for satisfaction at the result.

The museums, the examination-room, and a laboratory on the top floor were set apart for the exhibition, and were well filled with objects of interest. In each room an official distinguished by a blue riband in his button-hole was present to answer all questions, catalogues were distributed freely, and a good many of the exhibitors or their representatives were present, ready to supply more complete information.

Without attempting to give a full description of all the objects displayed (a complete catalogue of which we published last month in advance of the exhibition), it may be interesting to make a few general notes, with special details of some of the exhibits not generally familiar.

SCIENTIFIC PHARMACEUTICAL APPARATUS

Formed the skeleton of the exhibition. Several of our best houses contributed to this section, though in many instances the usefulness of this collection was impaired by lack of space, which prevented anything much beyond merely spreading a number of instruments on a table. The most prominent display of apparatus was made by Messrs. Orme & Co. (formerly M. Jackson & Co.), of Barbican. They showed besides a large variety of Bohemian glass flasks, beakers, and such-like laboratory requirements, specimens of the newest electric and galvanic instruments. They had fitted up one of Hickey's patent telephones, communicating from the top to the bottom of the building. Among the apparatus shown was a specimen of Bayley's cuprimeter, described lately to the Chemical Society. It is constructed in accordance with the observation that light reflected from a copper surface through a copper solution of a certain strength takes the copper appear silvery white. A comparative novelty was also exhibited under the title of "Mann's Gravimeter." This is a simple arrangement, designed to afford an



expedient means of obtaining the specific gravity of substances, the chemical constitution of which prohibits contact with water, as, for example, Portland and other hydraulic cements, limes, &c. In determining the specific gravity of such substances by the ordinary method, it is necessary to weigh them in some liquid by which they are unaffected; the specific gravity of this liquid has also to be determined, and the results reduced to the standard of distilled water. The gravimeter, as shown in the drawing, the specific gravity of solids can be taken quite independently of the density of the liquid used. It consists of a small flask, held when filled to the dotted mark, a known volume of

liquid; and a graduated pipette furnished with a stop-cock. In using the gravimeter the pipette is filled to the mark with any suitable liquid (in the case of cements, petroleum is recommended), 1,000 grains of the substance under examination are then introduced into the flask, which is placed under the pipette and filled from it to the mark A; before this is quite completed, the flask can be corked, and the contents agitated, to remove any small air bubbles. The height of the column of liquid remaining in the pipette determines the specific gravity, which can be at once read off on the graduated stem. The case contains scales for weighing 1,000 grains of the substance to be examined.

Messrs. Orme's exhibit included also specimens of Balmann's luminous paint, a petroleum test apparatus on the new basis, Crookes' radiometers, Hughes' microphones, and other specialties.

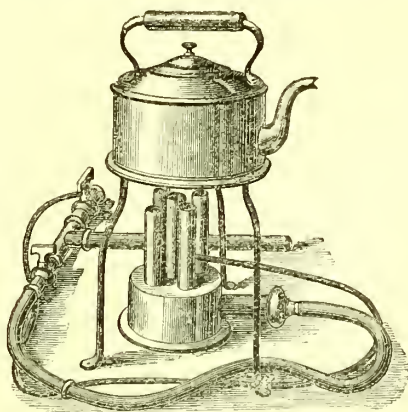
Messrs. Townson & Mercer had a general show of apparatus, and in the laboratory they exhibited several specimens of Fletcher's furnaces.

A number of microscopes were on view, many with objects. Mr. Collins, of Great Portland Street, showed a good variety. Especial mention might be made of his special 5*l*. 10*s*. instrument, which is well adapted for almost all pharmaceutical, botanical, pathological, or histological work. It is very easy to work with, and the fittings are all thoroughly well made.

Other microscopes were exhibited by Messrs. C. Baker & Co., Dollond, and Murray & Heath. We noticed a very useful instrument suitable for pharmaceutical work made by Messrs. R. Field & Co., of Birmingham, selling at less than 5*l*. The same firm also exhibited a polarimeter similar in construction to the one described by Dr. Symes in his paper read at the Sheffield conference last year. It is fitted with a Jellet's prism (which consists of a large prism of calc spar sliced lengthwise, and the two halves joined in reversed positions), the light passing through a diaphragm with a circular opening, thus giving a circular field divided by a diametrical slit into two parts, in which the planes of polarisation are slightly inclined to each other. By this means, on rotating the analyser, the point of extinction is determined with greater precision than is usually attainable. The instrument is supplied with two tubes, of 100 and 200 m.m. length respectively, for holding the solutions to be examined. It is supplied, packed in a suitable case, at 5 guineas. A lamp for producing the monochromatic sodium light to be used with the instrument was also exhibited.

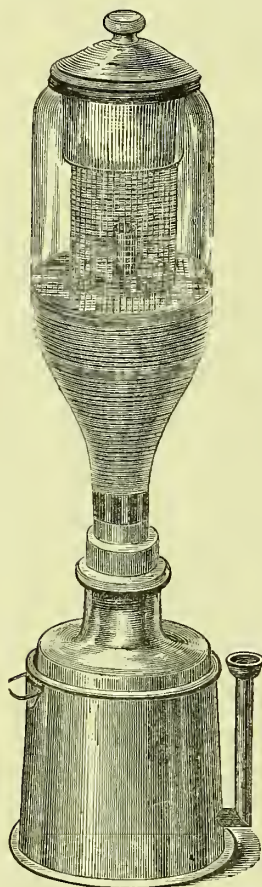
Spectroscopes of various sizes were exhibited by Mr. Hilger, of Tottenham Court Road.

As suggestions to other pharmacists, and not as objects for sale, Dr. Symes exhibited a couple of notions designed by himself, and worthy of general adoption. With the permission of Dr. Symes we have taken sketches of these pieces of apparatus. The first is an arrangement whereby boiling



water can be always ready in a few seconds for infusions or other purposes. The general gas-tube, as will be seen, supplies two branch tubes, which can be used separately or together as required. The small tube supplies the middle Bunsen's burner only, and gives but a small jet, consuming

an inappreciable quantity of gas. By keeping this always burning the water above is always kept hot. Whenever it is required at boiling temperature the other tap is turned on, the other burners light themselves from the central jet, and the water boils almost immediately. The other apparatus is more elaborate. It is intended to provide a means for continuous percolation, for the preparation of extracts, and such-like processes. Spirit is passed through the packed material into the receiver. The latter stands in



a water-bath, and is surrounded by hot water. This causes a constant evaporation of the spirit, the vapour of which passes up a tube to the upper part of the percolator. On the top is an ice-box, which condenses the vapour, and the process of percolation recommences always with one supply of spirit.

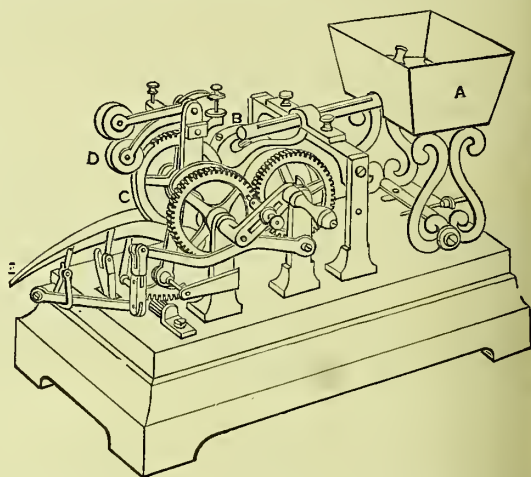
Mr. Cocking exhibited his simple cylindrical piping machine for pill masses. This brings a pound of pill mass into pipes ready for pill-making in five minutes. He also showed his more elaborate arrangement by which pills are first piped from the mass, and then cut and rolled into pills by means of grooved cylinders working against each other.

A small model of Goodall's grinding apparatus, which is a pestle worked in a mortar by mechanical means, was on the table.

The whole arrangement for preparing Limousin's wafer cachets was exhibited by Messrs. Limousin & Co.'s agent, Mr. Lauranson, of the Blackfriars Road. These do not seem to have become popular in England, though in America and on the Continent they have been rather freely adopted. They are, when finished, little round embossed envelopes, varying in size from that of a sixpence to that of a florin, containing medicine such as quinine, rhubarb, Gregory's powder, magnesia, &c., inside, and its name outside. The big ones seem formidable things to swallow, but we are assured that they go down with great ease.

FRENCH PILL-PRINTING MACHINE.

An apparatus which attracted a good deal of attention was the very pretty little pill-printing machine exhibited by the inventor, M. Vial, of Paris. With the subjoined diagram we can probably make clear the *modus operandi*. The pills,

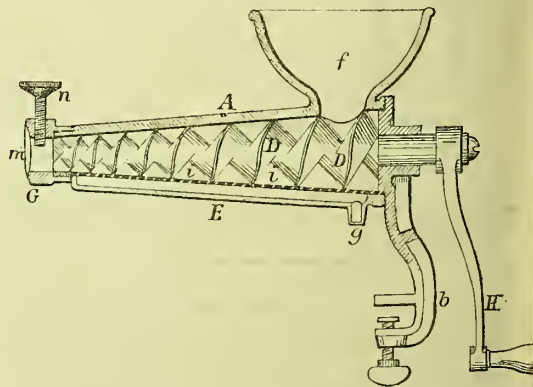


first coated, are placed in the hopper A, and are conducted from thence, one by one, along a small groove to B, where they drop through a cylinder to another groove. At a certain point in their passage they are brought in contact with a wheel C, which is being turned by the operator. On the outer rim of the wheel the type is fixed, it is inked from little rubber cylinders D as it revolves, and the pill meets the wheel just as the type approaches. It receives the impression in beautifully clear characters, and is henceforth unmistakable as to its properties, no matter in what company it may ultimately find itself. Our own private medicine chest for the past year or two has been a $\frac{1}{2}$ -oz. pill box containing perhaps a dozen varieties of these printed pills.

TINCTURE PRESSES.

Messrs. Lynch & Co.'s well-known and powerful druggists' press was in this section.

Specimens of the presses manufactured by the Enterprise Company of Philadelphia were also exhibited. One was the same which we described in February last, as shown in the drawing. It can be clamped to a counter, and works easily, and we are informed by Dr. Symes, who experimented

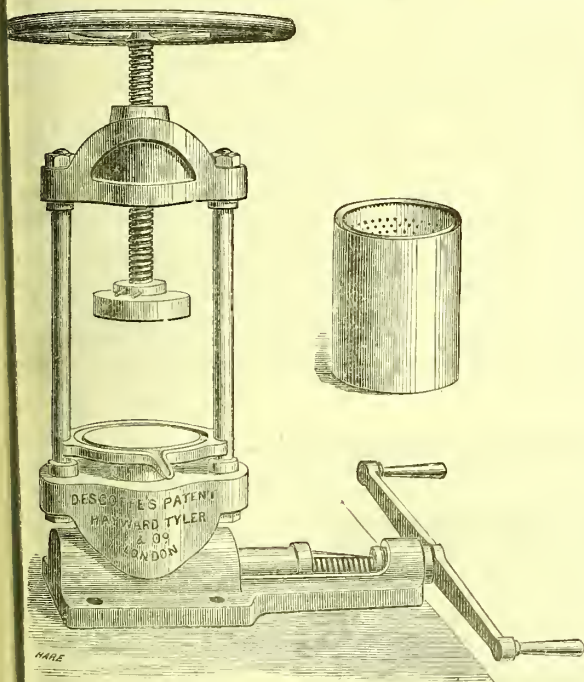


with it on the dregs of some tincture of hamamelis, successfully. Another little press, also of American manufacture, was novel only in the fact that the pressure was attained by a winch-handle, working on cog-wheels, instead of by the usual vertical application of the screw.

Several varieties, possessing novel features, were exhibited by Messrs. John H. Ladd & Co., of London. The mo

prominent was the "Boomer" press, which is a mechanical arrangement claimed by the makers to be superior to hydraulic presses. The power is acquired by working a screw, which, by rotation, causes the joints of four levers to approach or diverge, according to the direction in which the screws are worked. In the machine exhibited, which is the smallest made, a pressure of 10 tons was said to be attainable, and the capacity of the press was 6 gallons. The same firm also showed a pretty small press made with enamelled interior, fitted with strainers, and with a base sloping towards the spout. The cylinder fits into the frame with a spring.

Messrs. Hayward Tyler & Co. exhibited Desgoffe's combined screw and hydraulic tincture-press, a drawing of which we show. In the smallest of these presses, with a

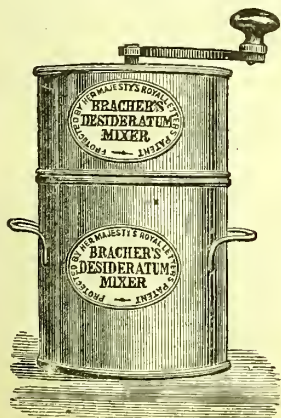


cylinder capacity of 3 quarts, a pressure of 10 tons may be obtained by hand-power. The hydraulic pressure is applied, as is shown in the engraving, by a screw instead of a pump.

Mr. Nutter exhibited in action Johnson's hydraulic filter-press. A supply of chalk and water was forced into the press, and run out as clear water, leaving the chalk in solid cakes behind.

MIXING MACHINES

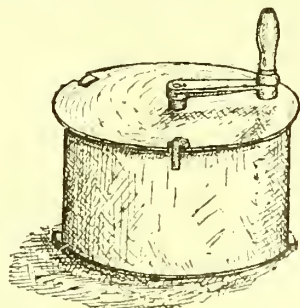
Were rather specially prominent. There were several sizes of Mr. Bracher's "Desideratum" mixer exhibited, intended



quantities of powder from 4 lbs. to 1 cwt. The principle of these is a spindle passing through a sieve. On the sieve

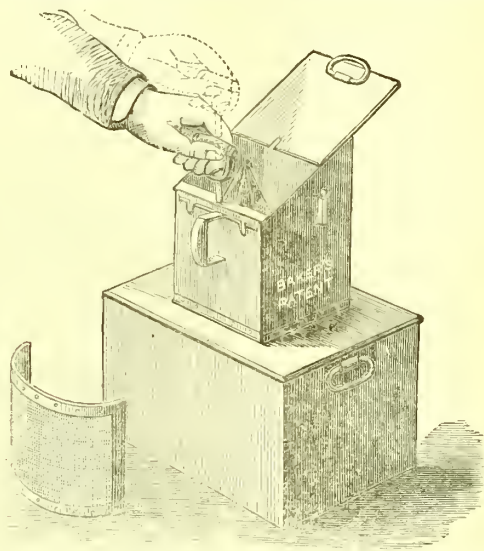
arms connected with the spindle revolve, which crush any lumps and rub the powder through the sieve. Below the sieve sloping blades revolve constantly, carrying the powder from the bottom upwards. Mr. Bracher's machine has found a good deal of favour.

Faija's patent mixing machine was exhibited by the wholesale agents, Messrs. S. Maw, Son & Thompson. It is



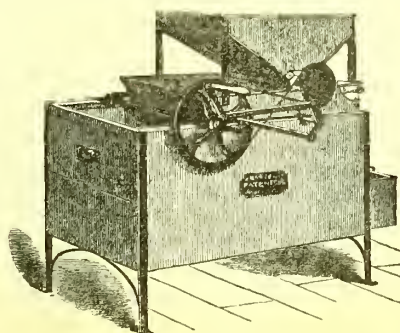
applicable to powders or to pomade or ointment mixtures. By an ingenious motion one or more mixers are made to run round the bottom of the vessel, revolving on their own axes as they go.

Baker's mixer is made in several sizes, and is worked by an agitator passing rapidly backwards and forwards in a



concave mesh. The mesh is easily removable for cleaning or for replacement by another finer or coarser. Messrs. Baker & Sons also exhibited their Morton's mixing machine for liquids, cold creams, or pomades. In this a regular whipping motion is provided, the blades working rapidly and closely to a concave surface.

Messrs. Baker showed also a very pretty model of a new mixing machine they are bringing out, which is



shown in the accompanying engraving. The powders are put in the hopper, and their passage into the sifter below

may be made fast or slow as occasion may require. In the hopper are two cylinders, revolving in reverse directions, each being fitted with a number of blades. The powders thus get a good preliminary mixing. When they reach the sieve they are met with an agitator, and afterwards are rubbed through the sieve by the same machinery as in Baker's ordinary machines. A receiver drawer is fitted below, while the material not passing through the sieve can be tipped into the bin behind. The hopper can, if desired, be also fitted with rollers to crush powdery lumps. All the motions are obtained, as will be seen, from the one wheel.

CHEMICALS.

The chemicals and drugs shown were not many, but were interesting. Most prominent in this department was the collection sent by Messrs. Fletcher & Fletcher, of Holloway. This included a mass of metallic bismuth, "refined by a new process, by which all traces of copper, silver, arsenicum, tellurium, selenium, sulphur, and phosphorus are eliminated." This claim is a large one, and manufacturing chemists will recognise its importance. Bismuth salts, chemically pure, could be, of course, prepared from such metal, and specimens asserted to be of such purity were exhibited. Messrs. Fletcher & Co. also exhibited their concentrated liquors for chemical syrups, and a solution of iodide of iron in this set was left open all through the exhibition without being in the least affected. They showed also some fine crystals of iodine, and a number of scale preparations.

Messrs. S. M. Burroughes & Co. had on show a considerable variety of English and American products, including the compressed tablets of various salts of Messrs. Wyeth & Co.'s manufacture, and granular effervescent salts of citrate of caffeine and extract of nux vomica manufactured by Mr.

specimen of sublimed menthol, in long silken hairs, attracting particular notice.

Messrs. Evans, Lescher & Webb showed "Fossiline," a new basis for ointments, and their "Effervescing Saline," a non-granulated powder of pleasant taste and known composition.

Chian turpentine was exhibited both by Hearon, Squire & Francis and Mackey, Mackey & Co. "Sanatizer" and "Oxychlorogene," two disinfectants of different character, were also exhibited by the latter firm.

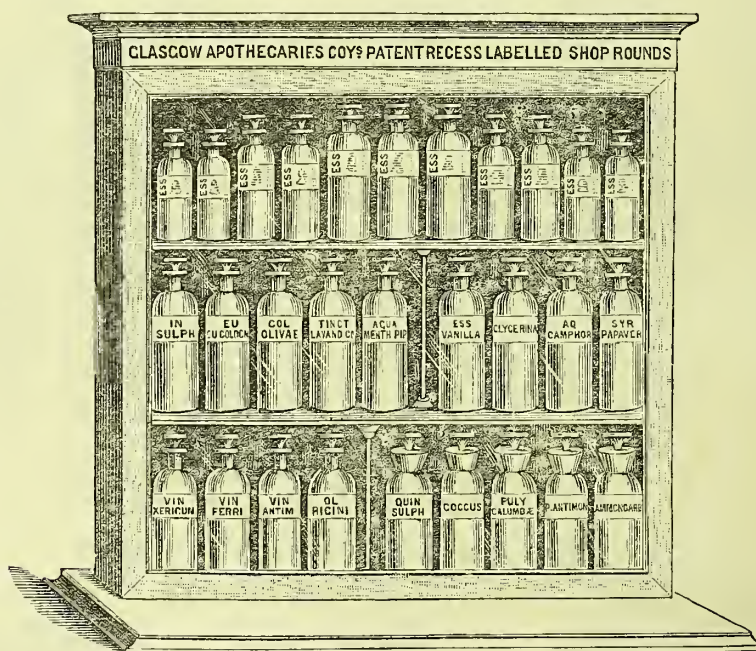
Messrs. Young & Postans showed some ripe bael fruit, and an effervescent preparation of salicylate of quinine.

SHOP FITTINGS.

The chief novelty in this section was found in a case containing a number of specimens of the American patent recess-labelled shop rounds. All kinds of bottles labelled in this manner were exhibited, a variety of 30 different styles of labels being included. The general opinion was very favourable as regards appearance, while the advantage of a label let into the bottle and covered with glass, as regards cleanliness and permanence, was obvious. These were exhibited by the agents, the Glasgow Apothecaries' Company. Perfume bottles, with female faces, were among this collection. Photographs of the rugged poison bottles were shown, but the articles themselves we did not find.

A dispensing counter, completely fitted, from the design which gained the prize offered by this journal some years ago, and awarded by Messrs. Hills, Ince, and Savory, was exhibited by the designer, Mr. Filmer Kidston.

Mr. S. Howlett was represented by a very well-made glass counter-case, with mirror-lined drawers, instead of the ordinary trays.



Bishop. They also exhibited a large vase of their new extract of *Hamamelis virginica*, or witch hazel.

Messrs. T. Christy & Co. sent a number of rare drugs and alkaloids. Among the crude drugs which we often read about, but very seldom see, were specimens of alstonia bark, dita bark, sassy bark, sweet bark from Australia, Australian pepper stem, Japanese gentian, Japanese belladonna root, moutan peony root, kusam root, coptis root, caroba leaves, papaw leaves, Paraguay tea, curari, goa powder.

A number of German chemicals, including a quinine series made by Jobst, of Stuttgart, and American herbs and extracts were exhibited by Messrs. Burgoyne, Burbidges & Co.

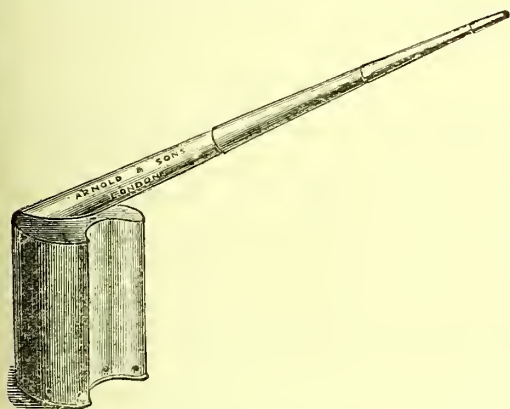
Messrs. Morson & Son had a few fine rare chemicals, a

MEDICAL APPLIANCES.

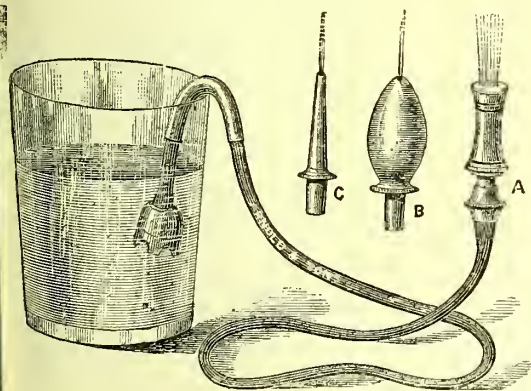
Messrs. J. Allen & Sons, of Marylebone Lane, had specimens of their ingenious bronchitis kettles, hot-air and vapour baths, inhalers, and food-warmers, which we have noticed in this journal on previous occasions. Their hot-air and vapour bath is a portable apparatus by means of which a Turkish bath can be provided in any house. Their bronchitis kettle may be used as an ordinary kettle, but it is constructed that by means of a tube which can be readily attached or detached vapour can be easily brought to patient reclining in a chair or in bed. They also showed croup kettle, such as is used at the East London Children's Hospital, by means of which warm air and steam are con-

ducted into a tent which is made to surround the child's cot, and which may be regulated in amount as may be necessary.

An excellent collection of medical appliances were contributed by Messrs. Arnold & Sons, of Smithfield. These included various specimens of improved clinical thermometers with coloured scales, hypodermic syringes, with oil reservoir to keep the plunger always fit for use, and with coloured graduations. Lister's carbolic steam spray-producers were interesting, and these and a number of enemas of various patterns gave a handsome appearance to Messrs. Arnold's collection. We may select for illustration from their exhibit (1) a simply constructed and comparatively inexpensive arrangement which can be set in an ordinary saucepan with some water, and then, in the form as shown in the drawing, can be used as a vaporiser or bron-



chitis kettle. Used with a lamp it may be converted into a hot-air bath, and by detaching a tube and applying a mouthpiece it serves as an inhaler. Another instrument which may not be generally known is Dr. Benton's improved "Universal" douche for the eye, ear, nose, or for cleansing wounds. It can be dropped into a tumbler, and then the action of a syphon being induced, an application of liquid to the eye can be made by the rose A, to the nose by the jet B, or to the ear by the jet C. This instrument is particularly useful when, as in many cases, a forcible injection is undesirable.



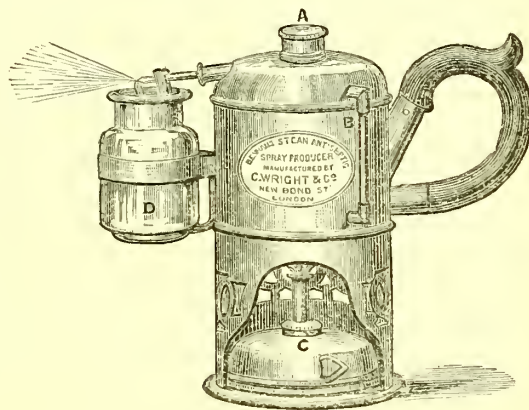
Messrs. Arnold & Sons were just able to decorate their stand with the announcement that they had received the London Exhibition gold medal.

Mr. Cowan's vaccination shields, and Mr. Toomey's dental syringe, by means of which anyone without previous experience can take a perfect impression of the mouth, were also exhibited, but these having been already described in this paper do not need further details.

Dr. Bentley's patent poultices, exhibited by Messrs. Ayton & Co., of Liverpool, are rubber bags made of such shapes as to fit the several parts of the body for which they are intended, such as the throat, chest, or abdomen. The surface

next the skin is covered with an absorbent material which may be soaked with warm water or with sedative stimulant, or antiseptic medicines, as may be required. Hot water inside the poultice will keep the poultice warm for a considerable time. It is obvious that these offer great advantages in many cases where the application of poultices or compresses is desirable.

Benham's steam antiseptic spray-producer, as shown in the annexed drawing, was exhibited by Messrs. C. Wright & Co., of New Bond Street. Water is poured into the boiler, and the quantity is shown by the glass gauge B. This is boiled by the lamp C. The vessel D contains a carbolic solution, and the apparatus, when in action, supplies a steam



impregnated to the requisite degree with carbolic acid, or whatever other antiseptic it may be desired to employ. If the boiler is nearly filled the steam spray will work for nearly an hour. There is a safety-valve at A in case of a too rapid production of steam. The apparatus is especially useful for operations or dressing wounds in hospital or private practice.

REFRESHMENTS.

Various refreshing aerated waters were provided by the makers, and each variety had its partisans. Zoëdonc was perhaps most sought after, but a new tonic fruit beverage, manufactured by Messrs. Palk & Smith, of Torquay, under the title of "Sparkling Rozelle," with an apple flavour, was fairly popular. Messrs. Godfrey & Cooke sent samples of "Eau Restaurative," an aerated solution of hypophosphites, and "Phosphate" and "Peptide," which it was understood were respectively effervescing solutions of hypophosphites and pepsine, were sent by Messrs. Idris, Trevena & Co. The same firm also exhibited syphons of aerated fluid magnesia, of B.P. strength, intended for dispensing purposes. This was a most desirable preparation, as, except by the aid of gas, it is impossible to keep magnesia in solution of B.P. strength. When the gas has passed off the Pharmacopœia preparation exactly remains. In this department Messrs. Lorimer & Co.'s pepsine sauce may be mentioned, as, though there was no background for it in the way of fish or chops, it was frequently tasted by approving connoisseurs.

Among the refreshments, Messrs. Prentice Brothers, of Stowmarket, had a gay display of their "Florvita" and its results, represented by a number of fine conservatory plants.

SUNDRIES.

Messrs. Lynch & Co. had a prominent display of medical appliances, bandages, trusses, &c. They also showed their well-known tincture-press and their new and simple pill-coater. A new spray-diffuser filled with perfume was in frequent requisition. They also exhibited glass measures bearing the stamp of verification.

Other verified measures and a complete series of the standards used for testing them were exhibited by Mr. Toogood.

Messrs. Bourne & Taylor had a good variety of useful tools for chemists, such as suppository pans, stopper loosener, funnel measures, and pill scoops, besides medical appliances, such as clinical thermometers, absorbent cotton-wool inhalers, &c.

Messrs. Gabriel & Troke's horse balls in capsules, which we mentioned recently, were shown.

Messrs. Erhardt & Co. showed specimens of vegetable parchment suitable for dialysis, and also some of the same material more elastic for capping, very thin and bright tin-foil the 5,000th of an inch in thickness, and a capsuling machine.

A case of Mr. W. T. Hunt's patent pleated caps for bottles was also exhibited.

A label-damper was shown by Mr. F. Gall, of Carshalton. It consisted of a cylinder in a glass well, in which water or thin paste might be poured. Above this cylinder another revolved, damping itself sufficiently, but not excessively, by contact with its companion below.

A new cabinet of *matéria medica*, very handsomely got up, and provided with glass covers to all the drawers (a very useful addition), was exhibited by Messrs. Wyleys, Walker & Co., of Coventry. The same firm also showed chemical apparatus, microscopes, and pharmaceutical preparations.

Some German shop-fittings and wooden cases for sending bottles by post were exhibited by Messrs. H. Poths & Co.

Provincial Reports.

ALLOA.

POISONING BY NITRE.—On May 27 a labourer named William Mathieson committed suicide here by drinking a solution of a pennyworth of saltpetre.

BARNSELY.

SAD CASE OF POISONING BY MISTAKE AT HOYLAND NETHER.—On June 3 an inquest was held at Hoyland Nether, near Barnsley, touching the death of Jane Evans, aged 2½ years, the daughter of a miner residing at High Royd, near Hoyland, who died from having laudanum, instead of paregoric, administered by mistake. It appears that the child was suffering from a cold, and the mother purchased two pennyworth of paregoric at the shop of Mr. Willey, at Hoyland, on May 29. She administered three doses to the child, which became affected by it, and died on June 1. Dr. Ritchie, of Hoyland, who was called in, found that laudanum, instead of paregoric, had been administered. The jury, after hearing the evidence, returned the following verdict:—"Inadvertently poisoned by laudanum sold by J. Willey, druggist, for paregoric." [We have received from Mr. Willey another version of the case. The bottle bore laudanum and paregoric labels supplied by another chemist besides Willey's paregoric label. When the doctor was called in the mother twice denied that she had given the child anything. On the third asking she admitted that she gave it three or four drops of paregoric on Saturday night and another dose on Monday night, an hour after which it became convulsed. The bottle she produced contained laudanum. Mr. Willey, who denies that he supplied laudanum in place of paregoric, only received notice half-an-hour before the inquest, and was unable to attend. Neither Dr. Ritchie nor his assistant, Mr. Moore, was present, or their evidence might have materially altered the complexion of the case.—ED. C. & D.]

ASSAULT BY A CHEMIST.—On June 4 Thomas Bedford, of Mapplewell, Barnsley, variously described as chemist and druggist and as surgeon, was sentenced to three months' imprisonment, with hard labour, for striking his daughter on the head with a pestle while he was intoxicated.

DUBLIN.

MR. C. H. DOWLING, a Dublin chemist, has been awarded 1,750l. as compensation for personal injuries sustained by him in a collision on the London and North-Western Railway at Menai Bridge last December.

GALLOWAY V. BARRET.—On June 5, in the Exchequer Division of the High Court of Justice, an application for a new trial in this case was refused.

BATH.

THE BATH WATERS.—Some excavations, made under the supervision of C. E. Davis, Esq., city architect, on the site of the King's bath, have brought to light a metal tablet bearing an inscription in eight lines. Professor Sayce suggests the following translation:—

Quintus has bathed [or washed] Vibia for me
With the water; along with Cluquatis he has
Saved her by means of QVIM.....TAEI [or TALE].
[His] pay [is] 500,000 pounds of copper coins or quinarii.
[Signed by] G. Verinus Arianus [Elianus] Ex.
Titianus the Augustal Priest [and] Sextius
Catus Minianus along with
Jovina Germanilla.

The letters are slightly indented, and are written backwards as if for printing from. The plate was found at a depth of 15 feet below the former level of the bath, in company with a number of coins.

GLASGOW.

CHEMISTS AND DRUGGISTS' ASSOCIATION.—The annual general meeting was held in Anderson's College on May 12 for the purpose of electing president and office bearers for session 1880-81. The retiring president, Mr. Kinninmont, F.C.S., occupied the chair. The secretary read a report of the council work of the closing session. Six meetings had been held at which papers were read, and three for trade purposes. At one of the latter a committee had been appointed to draw out a list of articles that might be reduced to meet the competition of outside traders, and give its results to the price-list committee. This having been done, the trade in and around Glasgow received circulars recommending the adoption of the reduced price for the articles mentioned therein. The council had tried to get up a chemistry class, under the charge of Dr. Milne, but as sufficient students did not come forward it could not be gone on with, much to the disappointment of Dr. Milne, who had given himself a good deal of trouble in preliminary arrangements. The number of members on the roll is just about the same as last session, and the attendance at the meetings during the session has been satisfactory. The secretary of the assistants' section, Mr. Adam, reported that they had held five meetings during the session. The treasurer, Mr. Maltman, reported a balance of 74 16s. 6d. over expenditure. The reports having been adopted, the following officers were elected for the ensuing session:—President, Mr. Robert McAdam (Glasgow Apothecaries' Company); Vice-President, Mr. Robert Brodie; Hon. Secretary, Mr. John C. Hunter; Treasurer, Mr. Maltman; Librarian, Mr. Joseph A. Clarke. Members of Council: Messrs. Daniel Frazer, Alexander Kinninmont, Thos. Davison, John Currie (Sauchiehall Street), John McMillan, John W. Pettigrew, R. C. Rait, William Simpson, William Weir, John C. Steele, William White, and John Fenwick. Auditors, Mr. John Walker and Mr. Archibald Paterson.

TELEPHONIC EXCHANGE.—An effort is being made to connect the wholesale and retail chemists and medical men by telephone, and the movement has met with a fair amount of encouragement. A West-end pharmacy is at present connected by a private wire with the residence of a physician over a mile distant on another line of thoroughfare, and messages are transmitted, prescriptions received, and even consultations held with the greatest ease and accuracy. The apparatus is fitted at a completely enclosed desk in a convenient corner of the shop, the utmost privacy being thus secured.

HALIFAX.

WHAT IS PETROLEUM?—On May 28, at the Halifax Borough Court, John Wadsworth, painter, 8 Portland Street, was summoned for unlawfully keeping a quantity of petroleum without having a licence. Defendant had sold some naphtha to a detective which gave off an inflammable vapour at 63° Fabr. Defendant held that naphtha did not come within the meaning of the Act, and that the substance he sold did not constitute petroleum. He called Mr. Jonathan Pollard, chemist, Woolshops, who stated that he had seen a portion of the substance that had been seized by the police. It was a "preparation from the destructive distillation of

wood," and known to the trade as rectified wood naphtha, not mineral naphtha, and another portion taken by the police was finish, methylated spirit and gum." What was intended by the Act was to prevent the sale of mineral oil products, and neither of the substances seized was such product. The substances were not the product of petroleum, coal, schale, pitch, or any bituminous matter. Mr. W. B. Hebdlen, chemist, Northgate, gave similar evidence. The Bench dismissed the case, but were willing to grant the Chief Constable a case for the Court above. The Chief Constable said he would consider whether or not to take a case.

LONDONDERRY.

STRANGE PARTNERSHIP DISPUTE.—On Thursday last in the Dublin Court of Chancery, Henry Taaffe, late of the firm of J. & G. McCaul, chemists and druggists, Londonderry, sued the other three partners, George B. McCaul, J. M. A. Friselle, and James McCaul, for the cancellation of documents which he alleged they had obtained from him by coercion and fraud. On October 31 the defendants accused plaintiff, in private and with great violence, of embezzling marked sovereign and of failing to account for 1,500*l.* of the partnership money. Under threats of immediate prosecution it is alleged that they extorted from him two separate documents, a confession of guilt and liability, and transfer of all his property to one of the partners, including a promise not to set up in business in Londonderry till seven years had elapsed. The other two partners signed as sole witnesses. The motive alleged is that plaintiff was very popular with the customers, and was suspected of intention to leave the partnership and set up in opposition. In defiance of the promise plaintiff had opened a shop opposite the defendants, and the latter sought an injunction to restrain him from carrying on business within ten miles of Londonderry, and claiming 1,000*l.* damages. The plaintiff thereupon commenced this action, which was commenced on Friday by setting aside the disputed deeds, dissolution of the partnership, arbitration of the partnership dealings, and payment of plaintiff's costs. All imputations on character on either side were withdrawn.

MACCLESFIELD.

POISONING BY CHERRY-LAUREL.—An inquest was held May 14 at the Parkside Asylum, near Macclesfield, on the body of Richard Whalley, who for more than 23 years had been an inmate of asylums. On May 7 he was seen eating laurel leaves, and swallowed a quantity. A few hours later he complained of illness, and was put to bed. In the evening he was found unconscious and breathing heavily, and died about 10 P.M. Dr. Niel, on making the post-mortem examination, found 2 oz. of laurel leaves in the stomach. The jury found a verdict of death from accidental poisoning, and considered that the lunatics should be carefully kept from the laurel bushes.

NOTTINGHAM.

NOTTINGHAM AND NOTTS CHEMISTS' ASSOCIATION.—The annual meeting was held at the Flying Horse Hotel, on the 11th, the President, Mr. R. Fitz Hugh, in the chair. The following were elected officers for the ensuing session:—President, Mr. R. Fitz Hugh, F.C.S.; Vice-President, Mr. H. Parker; Treasurer, Mr. J. Rayner; Hon. Secretary, C. W. Warriner. Council: Messrs. Beverley, Bolton, B. Fletcher, Humphreys, Jackson, Oldershaw, W. Widdowson, and Wilford. Auditors, Messrs. F. White and J. Lewis. The secretary's report was then read, showing the Association to be in a flourishing condition. The average attendance at the meetings had considerably increased during the past sessions. Classes for the study of materia medica had been conducted by Mr. R. Widdowson, and prizes given to the successful students by the Council. The treasurer's report showed a balance in hand of 51*l.* 17*s.* 9*d.*, an increase over last year. A discussion then took place upon the best means of forwarding the interests of the Association, in which most of the members took part. It was resolved to call a special meeting to get the feeling of the trade upon the Thursday half-holiday closing movement at an early date. The president, in the name of the Association, then presented to Mr. Roberts Jackson a hand-

some timepiece and liqueur stand, as a testimonial upon his retirement from the office of hon. secretary, which post he had held for the past five years, and for his untiring energy in promoting the interests of the Association and the trade in general. On the timepiece a plate bore the following inscription:—"Presented to Mr. Roberts Jackson by the Nottingham and Notts Chemists' Association as a recognition of his successful and energetic services as hon. secretary to their society for a period of five years. Nottingham, June 2, 1880." Mr. Jackson replied in a very suitable speech, and heartily thanked the members for their kind appreciation of his services. After the usual votes of thanks were given to the retiring officers and the president, the meeting terminated.

PLYMOUTH.

BURGLARY AT A CHEMIST'S.—On Monday, May 24, early in the morning, the shop of Mr. Frederick Herron, 4 East Street, was broken into. About 5.30 a.m., Mr. Herron was awakened by a very strong smell of gas. Going downstairs he found that the small jet of gas in the shop used for sealing with wax was lit and turned on full. On going into the shop he leaned over the desk for the purpose of turning out the gas; he rested his hand on the desk, and then noticed that it had been broken open. The desk was cut away, and the lock wrenched from the wood. The cash-box was taken out of the desk, broken open, and about 50*l.* abstracted. The cash-box was left on the floor. The doors of the shop were open, and the iron bar across it was on the floor. On further examination it was found that there were no less than eight large jets of gas—two being in the window, the rest in different parts of the shop—turned full on, and the gas escaping therefrom. The burglar or burglars were probably frightened in their work, as there was a large quantity of stamps and papers near the desk which were not disturbed. The money taken was chiefly in gold and silver, 15*l.* only being in cheques. The burglar or burglars, it is supposed, broke the chain of the grating in Market Street, then pulled it up, and thus got into the cellar underneath the shop. In the cellar there are steps leading to the shop, which is entered by means of a trap-door. After the robbery had been committed egress was made by the shop door. The jets of gas are thought to have been turned on for the purpose of blowing up the shop, so as to destroy the evidence of a burglary, or to blow up the house with the occupants, although leaving the shop door open seems to tell against that theory. The police have been investigating the affair. It seems curious that this should have happened with a policeman on the beat, and he not have observed the open doors and the gas burning within.

ROCHDALE.

MR. STEVENS, druggist, Townhead, Yorkshire Street, Rochdale, has had newspaper notoriety thrust upon him by a freak of the elements. On May 16, about 5 A.M., he and his family were awakened by a terrific noise, and some of the children saw sparks of fire. The framework of the shop window was found blown to the other side of the street, and a package of matches set on fire. At first it was thought that there had been an explosion of gas, but on further investigation it was found that in the skylight in the roof of the building a circular hole of one foot diameter had been made, and that a second light in the ceiling had been shattered to pieces, and the whole frame had been removed from its place. In the shop one or two parcels and some brushes were singed, and the door of the counter charred. Not a bottle was displaced, but the back window of the kitchen was broken. For want of a better explanation the mischief has been laid to a fire-ball.

SHEFFIELD.

AN INFRINGEMENT OF THE PHARMACY ACT.—At the Sheffield County Court, on June 3, an action was brought by the Pharmaceutical Society to recover a fine of 5*l.* and costs from William Rowland Hartley, of Neepsend Lane, in that town, for an infringement of the Pharmacy Act by carrying on business as a chemist and druggist, his name not being on the register. When the case was called on Mr. Granger, barrister, London, said he appeared on behalf of the Pharmaceutical Society, but he believed the defendant did not

appear. He could prove that the action had been brought to his knowledge. Sydney Jessop was then called, and said: I am a clerk with Messrs. Bromhead, Wightman & Moore. I saw the defendant on Saturday morning at his shop in Neepsend Lane, and told him I had called about the action brought against him by the Pharmaceutical Society, and he told me he had received the summons. Jane Brown was next called, and said: I went on April 28 last to the shop of the defendant, where I saw him. I bought a pennyworth each of castor oil, of red precipitate, and of paregoric. I gave Mr. Ward the packet of precipitate. Mr. William Ward said: I am a pharmaceutical chemist, and I received the packet from the last witness. I analysed some of the contents, and found them to answer the true test of the Pharmacopoeia of red precipitate. That is one of the poisons in the schedule of the Act. His Honour: There will be judgment for 5*l*., with full costs. How is it to be paid? Mr. Granger: The Society would like it as soon as possible. His Honour: The High Bailiff says he has no goods. (Laughter.) You can take the order in any way you like. Mr. Granger: I will ask for payment forthwith, and we will do the best we can. Judgment for the 5*l*. and costs.

ADULTERATED PAREGORIC SOLD BY A HERBALIST.—At the Sheffield Town Hall, on June 9, John Skelton, herbalist, No. 144, Gleadless Road, Heeley, was summoned for selling, on the 17th ult., to Inspector Patrick O'Connell, paregoric which was not of the nature and substance of the article demanded. The Town Clerk prosecuted, and Mr. Henry Auty defended. The defendant's wife appeared in answer to the summons. Mr. Auty admitted the offence. Mr. A. H. Allen (thorough analyst) said the sample submitted to him did not contain any opium. Mr. Auty, in addressing the bench for a mitigation of the penalty, contended that the defendant was not allowed to sell paregoric, and that the article sold was a balsam of aniseed. The sale of it as paregoric was an error of an agent of the defendant's. The magistrate said he saw no grounds for reducing the penalty. His opinion was that the case was a bad one. The defendant was a herbalist. A herbalist professed not to sell drugs, but to supply other things which were to serve the same purpose. Persons ignorant of the distinction between a druggist and a herbalist might go to the defendant's shop to buy drugs. They might ask for a drug and get some nonsense instead. It was a fraud upon the druggists and a fraud upon the party who went to buy. The defendant would be fined 5*l*. and 18*s*. 6*d*. costs, or in default one month's imprisonment.

THIRSK.

A CORONER ON THE SALE OF LAUDANUM.—On June 2 an inquest was held at Thirsk concerning the death of Harriet Clarkson, a domestic servant, 16 years of age, who had been found dead in bed that morning at the house of Mr. R. Jaques, postmaster. It was sworn to by two or three witnesses that the girl had been subject to toothache, and on the previous night had obtained at a chemist's shop in Thirsk a 3-oz. bottle of laudanum. The bottle was properly labelled, but the deceased could neither read nor write. The Coroner (Mr. Walton) strongly condemned the law as it now stands as regards supplying indiscriminately laudanum in any quantity. He thought that at least the parties by whom it was sold ought to be personally acquainted with those to whom they were supplying it. The jury returned a verdict of "Found Dead."

COMPARATIVE COST AND VALUE OF THE CINCHONA ALKALOIDS.—Dr. Hager, in a paper in the *Bunzlauer Pharmaceutische Zeitung*, gives the results of some experiments made on himself to decide this question. Pills containing considerable doses of the alkaloids were used to relieve catarrh, and the antipyretic value and cost in shillings for 100 grammes are given in the following table:—

	Antipyretic Value	Cost
Quinine sulphate	100	95
Quinidine sulphate	90	55
Cinchonidine sulphate	70	20
Cinchonine sulphate	40	10

This table means that 2½ grains of cinchonine sulphate in a dose will produce the same antipyretic effect as 1 grain of quinine in a dose, which costs four times as much.

BOTTLING AERATED WATERS.

(Notes of Experiments on the Pressures used in Bottling Soda Water. By Mr. John Briggs, of Hayward Tyler & Co., London.)

HAVING been engaged for more than 40 years in the firm of Hayward Tyler & Co., in manufacturing machinery for aerating soda water, lemonade, and similar beverages, I have been brought in contact with a large number of soda-water makers, both in London and the country, and I have noticed that the pressures at which aerated waters are bottled differ very much with the different makers. Some are of opinion that a very high pressure is required to aerate soda water in order to produce a superior article. It, however, is my opinion, and has been for some years, that as good, and even better, articles can be made at a much less pressure than the 120 lbs. generally used, and at this pressure, I believe, a large quantity of gas is wasted in easing the bottle before inserting the cork; and, again, the loss sustained in the breakage of bottles forms a serious item, as well as the consumption of acid and whiting used in making the gas.

To satisfy myself, I decided on trying some experiments, my object being, first, to ascertain the average pressure, and, secondly, the quantity of gas contained in each bottle from various samples. To accomplish this I provided myself with a small gasometer of such capacity that each inch of depth equalled the average quantity of water contained in a bottle—namely, 19 cubic inches. The average pressure in a dozen bottles was about 39 lbs. per square inch, ascertained by a small pressure-gauge introduced into the cork of each bottle. This was done with every bottle before letting off the gas into the gasometer. I then removed the gauge and attached a small india-rubber pipe from the cork to the gasometer, and on opening the cork the gas passed from the bottle into the gasometer, which continued to rise until all the gas had passed off; this occupied from half to three-quarters of an hour. I allowed some of the bottles to remain on all night to see if all the gas had passed off, and found the gasometer had not risen in the slightest degree after the first hour.

The gasometer, as I have already stated, was of such capacity that each inch of rise equalled the average quantity of water in the bottles, or 19 cubic inches, and would, therefore, represent the number of volumes of gas to one of water, or hulk for hulk. There is, however, one volume of gas remaining in the water, held there by chemical affinity, which can only be separated by heat, and to prove this I had three separate bottles put into boiling water, and each one gave out exactly 19 inches of gas. This perfectly agrees with what is stated by chemists, that water will absorb its own hulk of gas under atmospheric pressure.

The first experiment I tried was with seven bottles, bottled at 100 lbs. pressure. The first (bottled at 100 lbs.) showed 40 lbs. pressure in the bottle by pressure-gauge, and gave out 2½ volumes of gas; the second bottle (pressure on 23 lbs.) gave out 2½ volumes of gas; the third bottle (pressure 30 lbs.) gave out 2½ volumes of gas.

I next tried two bottles opened in the usual way (without trying them with the testing-gauge), one bottled at 120 lbs. and the other 100 lbs., and poured the contents into separate glasses. The one at 100 lbs. gave the best result, giving out the gas more freely; both gave the gas in a great shower of fine bubbles, which gradually died off in about half an hour. I tried two other bottles bottled at 100 lbs. the other at 120 lbs., the pressure the bottles was 36 lbs. for the one bottled at 120 lbs., and 38 lbs. for that bottled at 100 lbs. They gave as nearly possible the same result as to quality of water. The one 100 lbs. gave the best after standing half an hour.

I was now quite satisfied that a higher pressure than 100 lbs. at bottling is not needed, but for more complete proof I determined to go more extensively into the matter, as will be seen by the following tables, Nos. 1, 2, and 3, which are the results obtained in using the small gasometer I have already described.

TABLE NO. I.

No. of Bottles	Lbs. Pressure in Bottles	Vols. of Gas to 1 of Water	Cubic In. to 19 of Water
.. .. .	34	3	57
.. .. .	44	3.5	66.5
.. .. .	46	3.75	71.25
.. .. .	48	4.75	90.25
.. .. .	40	3	57
.. .. .	44	3.25	61.75
.. .. .	43	3.25	61.75
.. .. .	31	2.5	47.5
.. .. .	40	2.5	47.5
.. .. .	40	2.75	52.25
.. .. .	28	2.25	42.75
.. .. .	30	3.5	66.5
	468	33	722.00
Mean	39	3.10	60.00

This table shows the result of first experiment with bottles, bottled at 120 lbs. pressure, showing the pressure each bottle by pressure-gauge, the number of volumes gas to one of water, and number of cubic inches of gas. The results of these experiments are not what I anticipated. I expected the same pressures would give the same result, instead of which they differ materially (see Nos. 5, 9, 10). By adding up the pressures into one sum and dividing by 5 we get a mean pressure of 39 lbs., and by adding up the volumes of gas and dividing by 12 we get 3.10 as the mean number of gas to one of water, and reckoning in like manner the cubic inches of gas we have 60 cubic inches of gas to each bottle, plus 19 combined by chemical affinity in water. These experiments tend to prove that there is no advantage in bottling at high pressures, the whole of the gas were bottled at 120 lbs. pressure, and yet the mean pressure in the bottle is only 39 lbs., showing a loss of 81 lbs. in bottling, and yet there was an abundance of gas in the water, each bottle throwing up an immense shower of bubbles. I opened several of these bottles and poured the contents into a glass; they gave each the same result, and the soda-water was so pungent that it could not be swallowed without draught. I should, therefore, give as my opinion that the standard pressure in the bottle should not be so much as 120 lbs., which was the pressure formerly considered necessary.

TABLE NO. 2.

Results of experiment to ascertain the quantity of carbonic acid contained in 10 bottles of soda water bottled at different pressures, from 100 lbs. to 180 lbs. :—

Bottled at 100 Lbs. Pressure		Bottled at 120 Lbs. Pressure			Bottled at 180 Lbs. Pressure		
Lbs. Pressure in Bottles	Vols. of Gas to 1 of Water	No. of Bottles	Lbs. Pressure in Bottles	Vols. of Gas to 1 of Water	No. of Bottles	Lbs. Pressure in Bottles	Vols. of Gas to 1 of Water
40	3 1/2	1	34	3	1	30	4
28	2 1/2	2	44 1/2	3 1/2	2	30	4
30	2 1/2	3	46	3 3/4	3	30	3 1/2
31	2 1/2	4	48	4 1/4	4	34	5
32	2 1/2	5	40	3	5	44	4
40	4	6	44	3 1/2	6	40	3 1/2
40	3 1/2	7	43	3 1/2	7	46	4
34	2 1/2	8	31	2 1/2	8	45	4 1/2
40	3 1/2	9	40	2 1/2	9	45	4
25	2 1/2	10	30	3 1/2	10	45	4
340	30		400.5	32.75		390	38.5
34	3	Mean	40	3.27	Mean	39	3.85

I opened a bottle to each pressure and poured the contents into separate glasses to see if there was any difference in effervescence, and they were all alike as near as possible.

This table also tends to show that there is no advantage to be gained by high pressures, for those bottled at 180 lbs. give a lower mean pressure than those bottled at 120 lbs., and only 4 lbs. more than those at 100 lbs., while the volumes of gas do not increase at all in proportion to the pressure used in bottling.

TABLE NO. 3.

The following table shows the result of experiments on 35 bottles, showing the pressure, the number of volumes of gas to 1 of water, and also the number of cubic inches of gas in each bottle; these were bottled at different pressures from 30 to 120 lbs. :—

Bottled at 30 lbs. Pressure			Bottled at 45 lbs. Pressure			Bottled at 60 lbs. Pressure		
Nos. of Bottles	Lbs. Pressure in Bottles	Vols. of Gas to 1 of Water	Nos. of Bottles	Lbs. Pressure in Bottles	Vols. of Gas to 1 of Water	Nos. of Bottles	Lbs. Pressure in Bottles	Vols. of Gas to 1 of Water
1 ..	29	2 1/2	1 ..	26	2 1/2	1 ..	28	2 1/2
2 ..	23	2 1/2	2 ..	26	2 1/2	2 ..	30 1/2	3 1/2
3 ..	26	2 1/2	3 ..	28	2 1/2	3 ..	30	2 1/2
4 ..	24	1 1/2	4 ..	26	2 1/2	4 ..	28	2 1/2
5 ..	28	2 1/2	5 ..	24	2 1/2	5 ..	29	2 1/2
	130	11.5		130	11.0		151.5	12.75
Mean	26	2.3	Mean	26	2.2	Mean	30.3	2.55
Bottled at 80 lbs. Pressure			Bottled at 90 lbs. Pressure			Bottled at 100 lbs. Pressure		
Nos. of Bottles	Lbs. Pressure in Bottles	Vols. of Gas to 1 of Water	Nos. of Bottles	Lbs. Pressure in Bottles	Vols. of Gas to 1 of Water	Nos. of Bottles	Lbs. Pressure in Bottles	Vols. of Gas to 1 of Water
1 ..	36	3 1/2	1 ..	36	3 1/2	1 ..	40	3 1/2
2 ..	28	2 1/2	2 ..	36	3	2 ..	44	4
3 ..	34	3 1/2	3 ..	45	3 1/2	3 ..	38	4
4 ..	32	2 1/2	4 ..	38	3 1/2	4 ..	36	4
5 ..	30	3	5 ..	44	3 1/2	5 ..	40	3 1/2
	164	15.0		199	17.0		198	19.5
Mean	32.8	3.0	Mean	39.8	3.4	Mean	39.6	3.9
Bottled at 120 lbs. Pressure								
Nos. of Bottles						Lbs. Pressure in Bottles	Vols. of Gas in 1 of Water	
1 ..	..	..	..	..	..	45	4 1/2	
2 ..	..	..	..	..	..	54	5	
3 ..	..	..	..	..	..	54	5	
4 ..	..	..	..	..	..	54	5 1/2	
5 ..	..	..	..	..	..	48	4 1/2	
						255	24.25	
Mean	..	..	..	..	..	51	4.85	

The above were bottled for me expressly by a well-known firm at different pressures to ascertain which gave the best result. I had six to each pressure, but kept one of each back for the purpose of pouring into a glass to try the effervescence at the different pressures, and also the pungency on the palate. In each case (with one exception) the water was well aerated, but did not effervesce to come over the neck of the bottle. The specimen, however, which had been bottled at 120 lbs. pressure discharged the cork and came over the neck of the bottle with considerable waste.

The conclusion I draw from the above experiment is that the uniform bottling pressure should be 90 to 100 lbs., and also that soda-water makers should provide themselves with

a small testing-gauge to try the pressure occasionally in the bottles when the men are at work, to see they keep up the pressure in the bottles to the standard pressure, which should be about 40 lbs., but even a lower pressure produces a water quite satisfactory to general consumers.

The results of using excessive pressures (anything above 120 lbs.) are, firstly, loss of profit to the maker, owing to the waste of materials used in producing the gas, and needless wear and tear of machinery; and, secondly, inconvenience (amounting to positive danger) and loss to the consumer, owing to the blowing out of the cork in opening, and overflow of the water when opened.

Chemists' Assistants' Association.

WE find from a report of this Society to the end of last April, which has been sent to us, that the third session has been completed, and that the Association now numbers 75 members, an increase of 21 over last year. They have held 14 scientific and eight social meetings, the attendance averaging 20 members and 4 visitors. Their conversazione on October 22 cost the Association 16*l.* 0*s.* 6*d.*, while the dinner on January 28, at which 91 members and friends were present, resulted in a favourable balance of 1*l.* 6*s.* 11*d.* The following subscriptions and donations are recorded:—

	£	s.	d.
Allen & Hanbury	1	1	0
Attfield, Professor	1	1	0
Barron, Squire & Co.	1	1	0
Bentley, Professor	1	1	0
Branson, M.	0	10	6
Butt, E. N., Esq.	1	1	0
Cardwell, Mr.	0	10	6
Dobell, Dr. (towards dinner)	1	1	0
„ (towards conversazione)	1	0	0
Evas, Lescher & Webb	1	1	0
Glover, Mr.	1	1	0
Hearon, Squire & Francis	1	1	0
Hill & Son	1	1	0
Hodgkinson, Stead & Traacher	1	1	0
Horne & Sons	1	1	0
James, Mr.	0	10	6
Luff, A. P., Esq.	1	1	0
Maw, Son & Thompson	1	1	0
Naylor, Mr.	1	10	0
Nockolds, E., Esq.	1	1	0
Parker, Mr.	1	1	0
Phillips, Mr.	0	2	6
Postans, A. W., Esq.	1	1	0
Robbins, J., Esq.	1	1	0
Savory & Moore	2	2	0
Smart, W., Esq.	1	1	0
Stuart, Mr. C. E. (towards conversazione)	0	10	0
Stuart, J. E., Esq.	0	10	6
Smith & Co.	1	1	0
Toogood, Messrs.	1	1	0
Williams, J., Esq.	2	2	0
Wright, Layman & Umney	1	1	0

CHIAN TURPENTINE.

IN the *Lancet* of May 15 Professor Clay describes the characters of the genuine Chian turpentine used in his experiments. A fortnight later a letter on its chemistry was published in the same journal by G. W. Wigner, who also embodied the results of his experiments in a paper read before the Society of Analysts on June 2. It cannot be said that these writers clear up all obscurities, for though agreeing in many points with what has been written before, their contradictions are important. Knowing the difficulty of procuring the Chian turpentine genuine, Professor Clay relied in the first instance upon the characters given in Watts' "Chemistry," vol. v., p. 920, as tests of its purity. The drug he used was many years old, and agreed with the following description given by Watts: "Yellowish-green, has an odour of fennel and elemi, and an aromatic taste like that of mastic. It dissolves completely in ether, and partially in alcohol, leaving a glutinous residue." He next quotes the excellent description of the drug given in Flückiger and Hanbury's *Pharmacographia*: "Chian turpentine, as found in commerce and believed to be genuine, is a soft solid, becoming brittle by exposure to the air; viewed in mass it appears opaque, and of a dull brown hue. If pressed while warm

between two slips of glass it is seen to be transparent, of a yellowish-brown, and much contaminated by various impurities in a state of fine division. It has an agreeable, mild terebinthinous odour and very little taste. The whitish powder with which old Chian turpentine becomes covered shows no trace of crystalline structure when examined under the microscope."

The authentic specimen collected by Maltass is described a few lines before in the *Pharmacographia* as transparent, and on page 167 it is stated expressly that "Chian turpentine deprived of its essential oil by a gentle heat dissolves entirely (impurities excepted) in alcohol sp. gr. 0.815." This statement occurs not in the "description" of the drug, but under the "chemical composition." It is not quoted by Professor Clay, who states that the specimens he used corresponded in every particular with the two descriptions from Watts and the *Pharmacographia*. A little further on he states expressly that if the turpentine "does not dissolve in alcohol, but leaves a glutinous residue, then, all other things being equal, it is pure." On this point Mr. Wigner says in the *Lancet*: "It dissolves freely in hot alcohol of 60 over-proof, but a portion of one of the resins separates on cooling." In the *Analyst* he remarks: "The solution becomes slightly milky when cold."

Professor Clay says that the pure drug is of such a solid nature that a portion taken between the fingers may be rolled into the form of a pill without adhering to the fingers; many spurious specimens which have been supplied to the public have been of a syrupy consistence. The odour of the genuine drug is fragrant, and is not by any means similar to that of turpentine oil, whilst the spurious kinds smell strongly of the latter substance. The taste of the pure article is characteristic in not being unpleasant. It should be brittle yet elastic. If a piece is warmed, rolled out, and allowed to cool, and is then dropped on the floor, it generally breaks into a number of fragments. If placed in a shallow vessel it usually flattens and spreads over the vessel, the surface being smooth. When placed between two pieces of warmed glass its appearance corresponds exactly with that given in the *Pharmacographia*. It is best to take a piece of glass, warm it very slightly with a piece of lighted paper, clean it, and then place the drug to be examined upon it; then cover the drug with another piece of glass, and allow both to cool; then by holding the double glass up to the light the characters are readily distinguished. If the drug is spurious, consisting perhaps of strained crude turpentine or Venice turpentine, and so placed between warm glass, it will present the appearance almost of water. If Chian turpentine is adulterated with Canada balsam, or a gentle heat being applied to the glass on which it is applied the Chian turpentine remains in the centre and the balsam flows over the glass, the reason being that the former requires a little stronger heat to liquefy it. If black resin is mixed with Venice turpentine, to make the specimen resemble the impurities of the real article, the compound is of a syrupy consistence only, and on heating the mass sufficiently between two glasses the resin is melted, so that the apparent impurities which it presented disappear, whilst these remain permanent in the genuine drug. Canada balsam when heated becomes transparent, and perhaps more so if the heating is repeated, and the smell is of a well marked sickly odour. If the spurious kind consists largely of resin and a piece is put on a spatula and a lighted tap applied to it, the characteristic resinous odour is at once obtained.

Mr. Wigner has analysed four samples of the turpentine. The first was obtained from Allen & Hanbury's, and was about 10 years old. Its sp. gr. was 1.050 at 60° Fahr. dissolved easily in cold absolute alcohol, ether, chloroform and carbon bisulphide. Alcohol 60 over proof dissolved on boiling, the solution becoming slightly milky on cooling. The turpentine contained two different resins, one of which saponifies readily with sodium carbonate (4.0 per cent. and another which saponifies less easily, but forms a far less soluble soap (79.0 per cent.). Apparently, Mr. Wigner did not apply any tests to identify these resins, or to compare them with the resins of mastic, as he says: "It appears likely from its appearance and character that the latter corresponds pretty closely with the alpha resin of mastic. The resin which is easily saponified he names gamma res

sample contained 9.2 per cent. of volatile oil. A 2 per cent. solution of the turpentine rotated the ray of polarised light $9^{\circ} 12'$ to the right in a tube 200 m.m. long. Essential oil for the same solution gave a rotation of $4^{\circ} 18'$, leaving $7^{\circ} 18'$ as the rotation due to the resins. Impurities, chiefly sand, amounted to 7.3 per cent.

The second sample was newer and somewhat softer, but contained 9.2 per cent. of oil, rotating under the above conditions the polarised ray $1^{\circ} 54'$ to the right. These figures are exactly the same as those given by the older sample. Sp. gr. was 1052, rather higher than that of the first sample. The impurities, 3.4 per cent., consisted of woody matter, 2.0; ash, 1.4. The so-called alpha resin amounted to 1.2 per cent., the gamma resin to 6 per cent. The solution of the resins rotated the polarised ray $5^{\circ} 52'$ to the right. Sp. gr. of the third sample was 1043. The rotation in the polariscope was practically identical with that of the second sample, but the percentage of volatile oil was much lower—12.1 per cent.; that of impurities was smaller.

One of these had the aromatic taste of mastic, which is never regarded as a sign of impurity, in opposition to Clay, Court, the Pharmacographia, and Watts' chemistry. The first two samples contained traces of benzoic acid—a constituent not previously detected. Two sophisticated samples contained 26 and 16.3 per cent. of volatile oil respectively, with sp. gr. 1000 and 1025.

The sp. gr. affords, says Mr. Wigner, a practical test. Genuine Chian turpentine should float in a solution containing 8 per cent. by weight of concentrated sulphuric acid, should sink as soon as this is diluted. On the other hand, the adulterants used being lighter than water, the pure samples will float in this acid even after it has been diluted, say, to three times its volume, and will sometimes float in pure water. This test is perfectly easy to perform.

More than one surgeon has written to the *Times* and the other medical journals stating that at present no satisfactory results have been obtained from the use of Chian turpentine in cancer. Professor Clay has in most of these stated that the drug used was impure, and in a letter in the last issue of the *Lancet* he states that in his hands the most satisfactory results continue to be produced by the remedy in cancer of the various organs.



SPARKLING PHOSPHADE.

This is the name of a new aerated beverage, manufactured by Messrs. Idris & Co., who have just removed from Haverstock Hill, where they occupy the large premises lately vacated by the Temperance Beverage Company. Phosphade is a very agreeably flavoured drink, contains in solution the hypophosphites of iron, lime, and soda. It was on draught at the recent Pharmaceutical Exhibition, and its general get-up and its refreshment quality won a good deal of favour. It is put up in large small champagne bottles, and also in seltzer bottles. Messrs. Idris & Co. are going into the general mineral water for chemists in a very spirited manner, their price list being a very moderate one.

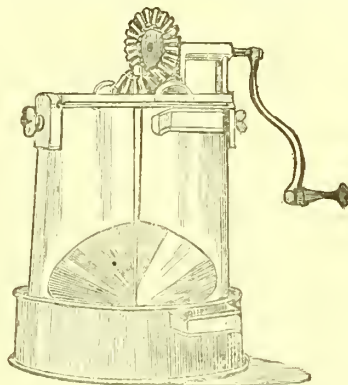
HYPOSPHINE.

In the April number (page 170) we abstracted from the *British Medical Journal* an article by Dr. Frederick Churchill, recommending a solution of the hypophosphites as a "chemical food" rather than the mere suspension of phosphate salts in syrup, which, he says, is usually taken under that name. Impressed with his remarks, Messrs. Idris & Co. have combined Dr. Churchill's solution of the

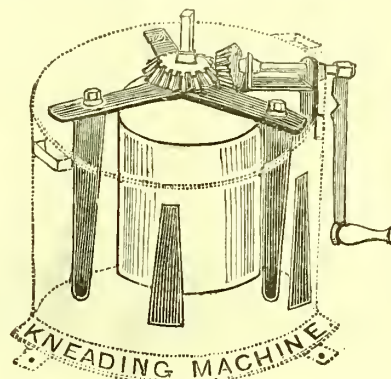
hypophosphites in the wine recommended by him with cod-liver oil in such a way as to form an inseparable emulsion, free from gums or alkalies. It has a rather sharp taste, with the fishiness which necessarily accompanies cod-liver oil, but is certainly more easily assimilated than the oil alone, though it contains half its weight in pure oil. It is especially recommended in cases of brain or nervous exhaustion, and in emaciation, and during nursing. Pharmaceutically, the preparation is, no doubt, to be commended.

HANCOCK'S NEW MIXERS.

WE have been shown by Messrs. F. & C. Hancock, of Dudley, whose mechanical ingenuity we have had occasion to remark on before, two new forms of apparatus for different mixing purposes. The first illustrated is intended for fluids and semi-fluids, or for emulsions, where these are required to be



made on a large scale. The machine is well adapted for such mixtures as paste or paints, as it has a powerful action in breaking up coagulated powders. As will be seen, it is worked by means of a revolving fan, which can be sent round with great speed. The vessel has a concave bottom, and the fluid is whisked up and round with great force. Attached to the sides are several blades at right angles, and by these the stream, which would otherwise be a simple whirlpool, is continually broken, and the ingredients are thus thoroughly mixed. The other machine is a kneading machine, and is suitable for mixing pill masses. In this



case the powders, with the excipient, are placed in the cylinder, and by a series of revolving blades at different distances from the circumference, the mass is pressed into all sorts of shapes against the sides, and also against several fixed upright blocks. We have seen dough made very rapidly by this machine without being touched by hand.

PRICES FOR 1879. MINERAL WATERS.

7½ PER CENT. FOR CASH.

5 PER CENT. ON QUARTERLY ACCOUNTS.

E. GALLAIS & CO.,
27 MARGARET ST., REGENT ST.,
LONDON.

STEDMAN'S TEETHING POWDERS.

1/1½ size (containing 9 Powders)	8/6 per dozen	} less usual discount.
2/9 " " 27 " "	24/0 "	
4/6 " " 54 " "	42/0 "	
11/0 " " 216 " "	11/0 net.	

A mixed parcel to value 78/- net, at 6/6, 18/-, 34/-, and 120/- per dozen.

SEIDLITZ POWDERS.

Full size, and prepared throughout with Howard's Materials.

Loose, 5/6 per gross; in 1 dozen Coloured Boxes, Wrappers, &c., 6/- per dozen, net.

TERMS—CASH WITH ORDER.

Manufactory—78 EAST ROAD, LONDON, N.

CHRISMA—A NEW BASIS FOR OINTMENTS. See page 99.

MEDALS LONDON 1873 PARIS 1875

MUMFORD'S PURE CRUSHED LINSEED

20s., net, per cwt., Bag included; or 21s. in 1-cwt. Cask; in 14-lb. and 28-lb., 22s. per cwt., delivered in London. BEST QUALITY; NO OIL EXTRACTED. Carefully cleaned and ground (so as to retain the natural colour of the Seed without being heated.)

NEWCASTLE GRANARY & STEAM MILLS, FARRINGDON ROAD, LONDON, E.C.

IMPROVED JUJUBES (PATENT). See page 99.

A GOOD MARKET FOR COD LIVER OIL } See page 5.

PURE EXTRACT OF MALT. See page 99.

SALICYLATE OF QUININE. YOUNG & POSTANS' GRANULAR EFFERVESCENT SALICYLATE of QUININE.

THE NEW REMEDY AND SPECIFIC FOR
RHEUMATISM AND RHEUMATIC GOUT.

Vide an article in THE LANCET for April 3rd, 1880,
by Dr. ARCHIBALD HEWAN.

YOUNG & POSTANS, 35 Baker Street, London, W.

POST FREE WHOLESALE PRICE LIST OF HOMŒOPATHIC MEDICINES.

Mother Tinctures, Pilules, Globules, Sugar of Milk, Medicine Chests,
Bottles, Cardboard Goods, and all Sundries connected with
the Homœopathic Business.

W. Butcher & Co.
WHOLESALE & EXPORT HOMŒOPATHIC CHEMISTS
BLACKHEATH, LONDON, S.E.

SCHWEPPE'S MINERAL WATERS.



CARRIAGE PAID
On 12 dozen and upwards.

AS
SUPPLIED

TO HER MAJESTY

THE QUEEN

TRADE ADVERTISEMENT.

PRICE LIST ON APPLICATION.

51 BERNERS STREET, LONDON.

PURE COD LIVER OIL. See page 99.

THE ANALYTICAL SANITARY INSTITUTION

Conducted by

ARTHUR HILL HASSALL, M.D., and OTTO HEHNER, F.C.S.,
54 Holborn Viaduct, E.C., London.

For the Analysis of Waters, Sewage, Air, Gases, Food, Drink, Drugs, Poison
the Urine, Ores, Manures, Acids, Alkalies, and all Commercial Products.

Pupils received for instruction in Water and Food Analysis.

Laboratory Teaching for Medical Students to qualify as Medical Officers of
Health and Food Analysts under the Adulteration Act.

A Vacancy for an Articled Pupil.

CARRIAGE PAID COD LIVER OIL } See page 5

Send 27s. for One Gross

FEEDING BOTTLES

All Complete, and Packed in One Dozen Wooden Boxes. Delivered
Free within 4 miles, or to carrier.

TYRER, 70 LONG LANE, BOROUGHS

CHEAP AND GOOD COD LIVER OIL } See page

MAY & BAKER. { SPECIAL NOTICE
page 2.

EDITORIAL NOTES.

A PHARMACEUTICAL CURRICULUM

THE tentative suggestion of a compulsory education curriculum for pharmaceutical candidates, which we anticipated two months ago, has now been made, and, no doubt, will form the subject of considerable discussion for some time to come. The Pharmaceutical Council, on the motion of Mr. Schacht, have appointed a Committee "to inquire into and consider the relation to each other of pharmaceutical education and pharmaceutical examinations." The Committee is, in theory, supposed to start on its investigatory proceedings with a perfectly blank mind, and Mr. Schacht expressly declares that he has formulated opinion as to the conclusions to which it may be driven. Nevertheless, everyone supposes that the only probable conclusion it will arrive at is that a compulsory education in pharmacy is desirable.

at, at all events, is a suggestion which will occupy the attention of the Committee. Of the members appointed to report on it, it may be assumed that at least half are antecedently of the opinion that the time has not yet come for such a regulation. For ourselves, we cannot see that, if a remedy is really needed for any grave disorder in the pharmaceutical world, this one is such a dangerous one as some gentlemen seem to imagine.

The symptoms are stated by Mr. Schacht. He, as Vice-President, has had frequent opportunities of attending the examinations, and he tells us what he has observed. He says that the candidates who present themselves may be divided into three classes—those who are evidently well-qualified; those who are hopelessly ignorant; and those who are to a certain degree informed on the subjects on which they are questioned, but whose chief talent lies in their skill in deceiving the examiners as to the actual extent of their knowledge. It is this third section who give the trouble, and they are, perhaps, a majority of the whole. They are, in brief, the crammed students.

Now it must strike everyone that if candidates can be so easily classified their arts of deception can hardly be so marvellous as they are represented to be. The examiners, we are told, are wonderfully able, and the standard of the examinations is as near perfection as a subliminary arrangement well can be, and yet these raw boys with a month or two of varnish are too much for the whole body. Clearly there is some work for the inquisitive powers of the Committee in this.

It is, however, unquestionable that crammed students do not present themselves, and that crammed students are the most difficult subjects with which the examiners have to deal. It may be, too, that a crammed student occasionally gets through, and forgets forthwith all he has learned. It should be remembered, however, that these crammed students have passed through a curriculum of some sort, and are not exactly the section who would be got at by such a regulation. As Mr. Savage very justly pointed out, cramming is sure to exist whether there is a compulsory curriculum or not. It is a recognised institution among the students for the medical and legal examinations, and would to some extent be tolerated rather than prevented by a compulsory curriculum.

Still, we do believe that the future of the pharmacist largely depends on his scientific education. Competition will choke off his business altogether unless he develops more generally the scientific and personal qualifications appropriate to his calling. These can only be properly provided by some sort of academic training. On this point, and not so much out of regard to the comfort or ease of examiners, we have some desire to see the commencement of a compulsory curriculum. We cannot altogether see the force of the argument (used by Mr. Schacht) that the present depressed condition of the trade may be a warrant making entrance into it more difficult or more difficult. It seems to us that such a condition is one of the arguments in its favour. As a simple matter of commercial advantage to those who are already in the trade it is obvious that any check to new comers is likely to be useful. But the Pharmaceutical Council have no right to consider the question from that point of view. They should, however, consider that if the trade is as bad as Mr. Schacht describes it, no greater kindness can be shown to its members than to make them understand that their prospects for mere buyers and sellers are rapidly closing up, and that it only offers chances of success in the future to those who can prove themselves to be possessed of knowledge and skill of real market value in the struggle for existence.

THE DENTAL JINGOES.

WE have received on several occasions, and especially during the last month, copies of a circular sent by the British Dental Association to persons who had registered under the Dentists Act as having *bonâ fide* practised dentistry in conjunction with pharmacy, but whose names are not on the register of chemists and druggists. The cases that have come before us have not all been representative ones, but we suppose that a good many persons who registered under those circumstances have surrendered to this bit of blank cartridge. Each person so addressed must use his own discretion in the matter, and we have no wish to introduce our mere opinion into the matter. Nevertheless we would urge our readers who are threatened in this way to make themselves clear about the facts before they allow themselves to be frightened by such a circular. The British Dental Association has no executive power at all, and it seems to us that they are using rather questionable means to obtain a number of resignations. The words of the Act of Parliament are most explicit. They permitted any person to register who could truthfully declare that he had been "at the passing of the Act *bonâ fide* engaged in the practice of dentistry or dental surgery in conjunction with pharmacy." A person practising dentistry and pharmacy might, or might not, be infringing the Pharmacy Act: that is not the question at issue; but he certainly could not be an offender against the Dentists Act by merely stating the bare fact as it existed. The Association has got a counsel's opinion to the contrary effect, but that is not a judicial opinion, and it is so opposed to the plain reading of the statute, that we doubt if they will even get a majority of the Medical Council to come to their view. They make their circular a little more effective than it otherwise would have been by advising their correspondents that unless they consent to the immediate erasure of their names, they, and those who countersigned the application, are liable to be proceeded against under the 35th section of the Dentists Act, which holds out a prospect of twelve months' imprisonment. This threat is the objectionable part of the circular. Of course anybody is liable to be *proceeded against*, but it is too monstrous to talk of punishing chemists' assistants because the dentists did not know how to draw up an Act of Parliament. The erasure of a name from the Dentists' Register is within the province of the Medical Council, and the person whose name is so erased has no remedy but from "a court of competent jurisdiction." But imprisonment for false or fraudulent declaration is not under the control of the Dental Association nor of the Medical Council, and it is too ridiculous to suppose that the most tyrannical of our judges would send a man to prison on such a legal quibble as has been raised by the Dental Association.

SELLING DIPLOMAS.

THE Ambassador of the United States to the Berlin Court has sent home particulars which have come before him of the recent sale of Philadelphia degrees. His letter and its contents have been sent round to the American press by the Bureau of Education, and the Commissioner in sending the letter forward says, "the institution named in Mr. White's letter is not the only one of the kind known here."

The particular one just now made famous is "the American University at Philadelphia," run by John Buchanan, M.D., whose diploma-mill has already become pretty extensively known, and some of whose customers probably reside within the United Kingdom. Two Germans had bought degrees from this man; one he had made a doctor of medicine, the other a doctor of dental surgery. In

the first case the man himself, in the other instance the authorities, had asked the Ambassador's opinion as to the soundness of the diploma, and inquiry had led him to the belief that the whole concern was a swindle.

He sends home a copy of one of these diplomas, which was "engrossed on parchment in very handsome style," and was couched in regular Oxonian Latin, pompously declaring that the University was empowered by the Republic to distinguish with academic titles such men as the faculty should deem worthy of the honour in theology, laws, liberal arts, and medicine. The diploma is signed by eight M.D.'s and others, is certified by Philip A. Cregar, Notary Public, and Mr. Cregar's certificate is counter-certified by William B. Mann, Prothonotary of the Courts of Common Pleas, of Philadelphia.

Mr. White (the American Ambassador), in his letter accompanying these documents, tells how in a successful play now running at Berlin, and also in a recent popular novel, the authors have been making sarcastic references to American "bought" degrees. Without wasting much sympathy with America in this matter, we may be permitted to doubt whether the sneer comes with an altogether good grace from Germany, which not so very long ago was reported to be almost as swarthy in the matter of selling diplomas as its present rival.

Since the above was written a telegram from the Philadelphia Correspondent of the *Times*, dated June 10, announces that Dr. Buchanan's game has been checked, at least for the present. It appears that the editor of a Philadelphia journal, the *Public Record*, has within the past few weeks purchased eight medical diplomas from the American University of Philadelphia, the Eclectic Medical College of Pennsylvania, and the Livingstone University. This work was done in connection with the Government authorities. Everything being ready, Dr. Buchanan, with three others of his faculty, were arrested on Wednesday and charged with using the mails for improper purposes, also with fraud. The papers captured in Buchanan's office showed a sale of 3,000 spurious diplomas, while there was a large quantity on hand. Buchanan's trade was chiefly with Germany, but some diplomas were sent to England. His prices varied from \$65 to \$110 each. Nearly all the diplomas issued were ante-dated. Buchanan's colleges are legally incorporated by the Pennsylvania Legislature, but this exposure will be made the basis of forfeiting the charters.

PRELIMINARY TRAINING.

DR. RICHARDSON takes a great interest in pharmacy, and he is one of the very few members of the medical profession who know anything at all about it. He has an intelligent appreciation of the difficulties and of the varieties of necessities in the trade. He it was who suggested some years ago that the counter-practice difficulty might be got over by a modified licence to practise medicine, giving a sort of half qualification. Some similar idea, we suppose, is included in the suggestion which he put forward in his speech at the Pharmacy dinner last month. He said, "I could hope that by a friendly amalgamation of your body with the last of the great and useful medical organisations which co-ordinates most nearly with yours, you could before very long enter our pale altogether, become, like us, professional in the strictest sense of the word, and obtain, each one of you, the direct opportunity of rising to the highest attainable position in a united and common profession." The idea will be recognised by most pharmacists as identical with that suggested by the President of the British Pharmaceutical Conference in his inaugural address at Sheffield last August. He desired

"that every student of medicine, whatever department the art he may be aiming for as the sphere of his ultimate work, be brought at some period of his training through one single portal." Whether a common curriculum for the students of the two professions would be practicable to any extent we are not prepared to say, but that the preliminary examination might be made subservient to both professions is very obvious. But any student who desires to do so has at present the opportunity of passing through the one portal, from which he may pass to any section of the pharmaceutical or medical profession, or, indeed, to any other department of professional life. Let him pass the matriculation examination of the University of London. For that he must have fair abilities, a good groundwork of general education, and a special preparation. The examination passed, the whole field of cultured life lies before him. He will not have acquired such an amount of classical learning as to make of him necessarily a pedant or a bookworm; but if he go no further he will at all events be fairly fitted to take his place in educated society. He will be no worse fitted for commercial life, if such should be his destiny, and he will be in a very advantageous position regards medical, scientific, or literary pursuits, if he should desire to adopt any of these. As the future chemist or druggist must pass a preliminary examination of some sort we offer this hint to those parents who are desirous of assuring for their sons a successful career, and who can afford to give them a somewhat more extended education which will be necessary

THE FUTURE OF THE TRADE.

WE should very much like to prophesy smooth things of the future of pharmacy if we could do so with any reasonable degree of faith in our own inspiration. We are out of favour with many of our friends because we do not more often after month complain of the unjust competition of cutting grocers, stationers, and stores, and bewail the profits which were once associated with the trade of a chemist and druggist. Now, in the first place, as this journal is not read by the opponents of chemists and druggists, we should never make them dance to our piping, piped we never wisely. And, further, if pharmacists are only capable of the exertion of condoling with each other on their miseries they will deserve the annihilation which will assuredly overtake them. We have heard of the man who waited to cross a river until the stream should have run dry. Equally intelligent are those who are waiting for the present stream of competition to flow away. That stream must be battled with. The chemist, so far as he is a tradesman, must not expect any special public favour merely because he is a chemist. When the chance of what was once considered only fair profits is gone, he must put up with smaller profits, and make up the balance on something else. If the patent-medicine trade is broken up, a shrewd chemist can easily meet that trouble by putting forward with confidence, though with judgment, preparations of his own. Many chemists can strike out a specialty in some line, according to the needs of their localities, agricultural, manufacturing, or fashionable. One of our correspondents last month pointed out how apparently lost was the example which the Rochdale chemists set their fellow-traders some time back in persuading the medical practitioners of their district to discuss with them the subject of dispensing. If chemists then were not quite successful, but there were probably thousands of medical men round the country who really wish to give up their dispensing, and who will do so when they can confidently feel that it can be done to the advantage of their own and to their patients' advantage, and not for

of the chemist chiefly. At least the discussion must be kept going, and sooner or later it will have its effect if the chemists meet the doctors' difficulties reasonably. More than all, the forthcoming pharmacists must fit themselves to take a higher place than their predecessors occupy, for in the future it will only be the skilled labourers that chemists will be required at. Chemistry is fast ceasing to be an occult science, and those who intend to live by it must be in advance of their contemporaries. As a matter of simple business, therefore, young pharmacists must make up their minds to study: not merely to learn enough to pass them through their examinations, but enough to fit themselves to hold their own in the every-day competition to which they will have to submit.

THE PHARMACEUTICAL SOCIETY OF NEW ZEALAND.

We have received from the secretary of this Society a further report of progress. A start towards forming a reference library has been made, and the Society is looking out for rooms and offices in Wellington. The proposed Pharmacy Act which the Society desires to have passed has been it is understood, taken up by the Colonial Government, and is to be brought forward in the next session of Parliament. It is desired to form a General Council to govern the affairs of pharmacy in the colony, having headquarters at Wellington, but with branch councils at Auckland, Christchurch, and Dunedin.

Several important questions, it is added, will have ultimately to be dealt with by the General Council, and no more so than "how to supply New Zealand with efficient pharmacists from the ranks of the youth of the colony." So far as the legal profession is concerned this has already been successfully accomplished, by the simple means of rough apprenticeships, severe individual study, and passing an examination before a competent judge; this with modification may probably be found a satisfactory solution of the problem as regards pharmacy in the colony.

DRUG MARKET TRICKS.

Of adulterated drugs there are at least two classes, the one composed of those whose impurities are present from mere accident, occurring during the process of collection, which might or might not have been pure had greater care been bestowed upon their selection or preparation, while the other may be described as drugs wilfully adulterated. No one better than the conscientious druggist remembers that when the Food and Drug Bill was first enacted he was liable to be pinned upon to account for impurities in such drugs as sea-bony, the presence of which was absolutely beyond his control. The amended Act has now freed him from the risk of having his good name jeopardised by such prosecution, and as a rule he has only himself to blame if he traffics in adulterated drugs.

Nothing has done so much to eradicate the odious trading in adulterated drugs and preparations as the education of the pharmacist himself. He is far less dependent than he used to be on the character of the wholesale house from which he obtains his supplies. Those who now buy inferior soda, for instance, take the responsibility of its adherent impurity of carbonate of barytes into their own hands, and if they will buy sweet spirit of nitre and water, they court being brought face to face with the magistrate, and they deserve to be left there unaided. But the higher qualification of the retail pharmacist compels the wholesale druggist in turn to watch closely the goods offered to him

for sale. He is not often deceived, but sometimes a new trick is introduced and the rogues get the better of him.

Not long since we heard of a fraud which deceived the practised eye of an experienced buyer. It consisted in the "salting" of a cask of crystalline cream of tartar with spar. Such roguery, however, was short lived when once exposed, for all are now on the alert.

Recently our attention has been called to an almost parallel case in a drug professedly sold as imported. Some Jamaica sarsaparilla, apparently of the first quality, was made up in hanks, about 50 of which were tied together to make a bale. These were offered at several successive drug auctions. In the sample-rooms only the outside of the bundles was exposed, and so cleverly were these bundles packed, that the trick escaped unnoticed, and it was not until the drug was received into the warehouses of the various buyers that the fraud was detected.

The imposition consisted chiefly in taking a very inferior kind of root known as Mexican, and elegantly winding upon it, and chiefly upon that side intended for exposure for inspection, true Jamaica sarsaparilla.

We imagine that in future it will be anything but easy to successfully repeat such a deception.

The simple remedy we should prescribe for stamping out adulterated drugs and chemicals would be a combination of the importer, the wharfinger, the broker, and the drug buyer, each and all pledging themselves not to trade in false drugs or chemicals. Such a system would be much better, and more effective than the appointment of an inspector of drugs (as is the case in some countries) to examine all such goods when of direct import.

ON PRESERVING AND STORING OF OLIVE AND OTHER OILS.

THERE are few things which cost the anxious pharmacist more thought and trouble than his stock of oils. It is not so much the time to buy or the market to buy in we refer to, important though these points are, as the keeping and storing of the oils after they have been received into stock. Particularly is this the case with the fatty oils, such as cod liver, olive, castor, and almond. It is necessary for the more delicate purposes for which these oils are commonly required, that they be kept constantly bright and sweet; but this, we need scarcely say, is exceedingly difficult where there are so many agencies continually at work to change their nature and lower their quality. Of the oils just mentioned the almond and castor are the least susceptible to external influences, a fact brought out most strikingly in the treatment which they are made to undergo to fit them for the market. Both of these oils, for example, are more or less bleached by exposure to the sun, and this process of bleaching the oils, as is well known, is continued for days, and is generally conducted in Winchester bottles loosely capped. Now a few hours of this treatment would ruin the finest olive or cod oil. Some time ago we conducted a series of experiments for the purpose of determining the changes which took place in olive oil under various conditions, and we then found that a few hours' exposure to a summer's sun of the oils in bottles hermetically sealed was sufficient to produce serious changes in their nature and constitution. These changes were not at first perceptible either to taste or external appearance, but they rapidly passed into a second stage, in which the oils dimmed in brightness, and to the taste assumed a distinct *nip* or *bite*, instead of the sweet, nutty flavour distinctive of the fresh oil. The same, or at least a very similar *bite*, is rapidly produced in the cod oil under like conditions, and in both oils the change is much more

rapid, quickly passing into decomposition if they are exposed in open or loosely-covered vessels. It is, therefore, nothing short of ruin to these oils to place them, as is frequently done for show and purposes of sale, in windows or other exposed positions.

We have said that the almond and castor oils are not so susceptible to change, but while saying this we have also reason for asserting that, in the case of the almond oil at least, the bleaching cannot be carried to any extent, most assuredly not to the extent to which it is frequently done, without serious detriment to the oil. We have again and again had reason to observe the marked difference in the soothing properties of a cold cream made from the fresh almond oil, and that made from a pale oil; and this, too, where there was nothing very objectionable either in the taste or smell of the latter. Lister's Boric ointment is another preparation which strikingly brings out the difference between the two oils. We are not aware that notice has ever been taken of the proneness of this ointment to get rancid, even when a fresh and good oil has been employed. But where a pale oil has been used, it will not keep good for many days—we had almost said hours. It is probably not unimportant that attention should be directed to this, seeing that almond oil has come so much into favour lately in the making of ointments.

Perhaps next to heat and light, the most prolific source of evil to the oils is extreme cold. Not that cold in itself is anything but favourable to the preserving of the oils, but it causes all of them (with the exception of almond, which only thickens under extreme degrees of cold) to thicken and deposit. In dealing with this *margarine* deposit, two mistakes are very often committed, viz., that of decanting the supernatant clear oil, which can only result in very decided loss to the retailer, or that of heating the oil considerably above the normal temperature to take up the deposit, which can only result in deterioration of the quality. It is not always practicable to keep the oils in an uniform temperature, especially in a climate such as ours, where we are often suddenly exposed to extreme changes, but some arrangement may generally be effected. Where other plans fail we have frequently recommended, and always with approval, the bottling of the oils in sizes suitable either for sale or general consumption, and in quantities sufficient to last the winter, and then wrapping them in several folds of waste paper, of which there is generally plenty lying about. Paper has a wonderful protective power against extremes both of heat and cold, and a similar reason probably accounts for what many consider the uniform superiority of the olive oil contained in straw-covered flasks. The straw not only protects from extremes in temperature, but it also protects from the decomposing action of the light.

There is another advantage still in having the oils bottled at the beginning of winter, viz., that in the event of their depositing each bottle will contain a proper and uniform proportion of *margarine*, which can at once be seen and properly dealt with. When oils are stored in tins or casks, it not unfrequently happens that a considerable portion of oil is drawn off before the deposit is noticed. We recently had our attention called to a Winchester quart of such deposit filtered off from a tin of cod liver oil. In this case there was not the least suspicion of the oil having deposited until the tin was more than half emptied, when it was too late to remedy the evil, and the consequence was a loss of nearly 100 oz. on the tin. Two things may be kept in mind in dealing with an oil which has thickened, viz., first, that the deposit from a certain quantity of oil (where not filtered out) should be taken up again by the same quantity of oil; and, second, that it can afterwards only be kept clear at a

temperature several degrees above that at which it originally thickened. In other words, the deposit from four gallons of oil will not be taken up by two; and where it originally deposited, say, at 32°, it will ever afterwards deposit at temperature somewhere between 35° and 40°.

Another point on which too much stress cannot be put is the absolute purity of all vessels into which oils are to be put. Owing to the difficulty of cleansing them thoroughly as well as to the amount of surface which they present to atmospheric action on drawing off the oils, we think casks and tanks particularly objectionable. Not less objectionable, however, are bottles, be they ever so clean, should they contain any trace of moisture. The store-room, likewise, should be dry and airy, not exposed, as already shown, to too much light nor to extremes of temperature.



AND

Literary Notes.

The Spirit of Nature. A Series of Interpretative Essays on the History of Matter from the Atom to the Flow. By Henry Belyse Baildon, B.A., Member of the Pharmaceutical Society. London: J. & A. Churchill.

WE naturally read with an especial interest the published works of any of our personal acquaintances; and more associated in any life work will experience to some extent a similar feeling. The author of the book before us does not now for the first time print his name on a title-page. He has already published two volumes of poems and tragic drama, and from extracts from reviews printed at the end of this new volume we gather that these have obtained the approval of skilful judges. The *Graphic*, for instance, has declared that certain of the poems "are worthy of Browning at his best;" "their tremulous beauty, delicate fancies, and wealth of language recall" to the *Literary World* "the poetry of Shelley;" in the opinion of the *Edinburgh Daily Review* one poem "fairly rivals the most pathetic pieces of the elder Hood;" according to the *Edinburgh Courant* Mr. Baildon "belongs to the Wordsworthian school;" while the *Dundee Advertiser* hails the tragic drama "as a return to a better and more Shakespearean style of writing dramatic poetry than has prevailed for some time."

In "The Spirit of Nature" Mr. Baildon for the moment abandons the rôle of poet, and assumes those of chemist, botanist, philosopher, logician, and theologian. Tyndal's Belfast oration, with its materialistic tail, seems to have started the author on his present train of thought; and the book before us he aims to prove that the doctrine of evolution may be accepted by the scientific mind without the least preventing, but, on the contrary, strengthening faith in a personal Creator. We have the disadvantage (as a reviewer) of being thoroughly in accord with Mr. Baildon's doctrine, and, therefore, the only criticism we can pass on his argument is that it is not very novel. Paley, as every theistic writer since has used the argument of evidence in the works of creation, and Mr. Baildon to a great extent follows the same line. But there is much freshness in his presentation of the argument: the poetic aspects of science are lovingly sketched, and his chapters contain frequent passages of eloquent language clothing worst thoughts. We are sorry that we must limit ourselves to one quotation, but we will choose one which fairly indicates the character of the work. He thus closes one of his chapters on "Botany," in which he has shown the endless resources of Nature's processes:—

Certain it is that the student of Nature, whether he seek truth or pursue beauty, need never weep the tears of an Alexander for new worlds to conquer. If he do, they will be, like those of the Macedonian, tears of ignorance. The only limits we have yet discovered are the limits of

sciences. An improved telescope apprises us of a score of unknown things; a higher power obtained in the microscope may multiply by thousands the population of a drop. Nor is the increase in mere quantity number. Beauty behind beauty, and wonder behind wonder greet us in advance. Nature is no piece of veneered and varnished elegance. Through the centre, the graining is constant and undegenerate. Nothing is there in her workshop; the smallest pollen-dust is bedight with delicate coatings, the most minute of diatoms has its tiny disc graven with a fair design. To me it is a mystery how any man can come from the contemplation of Nature with the weary soul and the dreary creed of an atheist. Man may find, indeed, much that humiliates him, bidding him that he is not the cynosure of the universe, seeing that the existence of the meanest creature seems fenced with like care to his own, leading him to speculate that as there are unfathomed depths of being below him, so there may be heights as immeasurable above, and yet giving him a conviction of his own possible dignity and worth, a creature whose production past æons have laboured, the crown of the visible creation, and a confidence that the pervading Power that has induced the most atom with indestructible existence, quickened dead matter with the tender of vitality, and exalted it into the very home of feeling and passion of thought, cannot be such as to be careless of the souls of His children, callous to the destiny of man.

While we cordially admit the pleasure which a perusal of Mr. Baidon's book has given us, we could not read it without frequently feeling that it might have been better if the author would but have striven to check his excessive facility of expression. At times charmingly concise, Mr. Baidon now and then drops into a style of tiresome verbosity. He decorates each link of his argument so abundantly that the chain is almost hidden. Then every idea has its limitations, expansions, variations, and parenthetic sub-ideas. Similes are used in such profusion as to defeat their object and darken counsel with words. We take page 17 in chance, and find in association the following:—"Unlikeness and diversity," "organisation and vitality," "wonderful mystery," "lowest and meanest," "aggressive and encroaching," "attaches and secures," "foreign and external," "cold and inexpressive," "instinctive repugnance and repulsive dislike." Of course different shades of meanings are thereby conveyed, but the charm of direct diction is lost. It could be added that some of the essays here printed have already been published among the papers read before the North British Branch of the Pharmaceutical Society.

Dr. Carey's Hygiene. A Series of Essays on Popular Scientific Subjects, with special reference to the Chemistry and Hygiene of the Eucalyptus and the Pine. By C. T. Kingzett, F.C.S. London: Baillière, Tindal & Cox.

The central point of popular chemical science, so far as Mr. Kingzett's new work presents it, is undoubtedly the theory of Sanitas. Just fresh from its perusal, we are under the impression that Priestley, Lavoisier, Cavendish, and Schönbein existed in order to prepare the preliminaries of this great event; that eucalyptus and pine forests have been formed round about the earth's surface so as to provide the necessary materials for the manufacture of sanitas; and that beefsteaks were specially created in order that they might be preserved from putrefaction by sanitas. Mr. Kingzett has found an educated public craving for popular scientific information, and he feeds that craving with the theory of sanitas. The public, we believe, in this gentleman's opinion, have a distinct purpose in living, and that is to purchase sanitas. The book would be excellent as an illustrated handbill, but it has too shoppy a flavour to justify its publication as a scientific treatise. We shall be curious, however, to learn the result of this system of making the public themselves pay for the advertisements which they read.

Principles of Agriculture. By Albert Carey. London: Thomas Murby. Pp. 196. (2s.)

A **ALL** text-book, intended especially as a course of preparation for the examinations of the Science and Art Department on this subject. It is framed on the syllabus issued by the Department, and treats of soils, crops, manuring, drainage, live stock, feeding, irrigation, and farm buildings. A good introduction to the study of agricultural chemistry, and the information it conveys is likely to be of service to the dwellers in towns, who are often woefully ignorant of the science which is at the base of the methods by which

their bread and meat are provided for them. The author is a medalist and holder of first class honours certificates from the Science and Art Department, and head-master of the North Tawton Board Schools. His work, while sticking closely to the matter in hand, is written in a sufficiently free style to make it readable for one who is not trying to pass an examination in the subject treated.

How to Feed an Infant. By George Benson Baker, M.D. London: Baillière, Tindall & Cox. 8vo. pp. 4 and 95. 1880.

As the author says, it is unusual to find "anyone that knows anything about an infant until parental responsibilities have been incurred. . . . The mother's education in her new duties is often a series of experiments on her infant, suggested by those who probably know as little about infant dietetics as herself." "Feeding an infant means much more than simply putting food into its mouth." Two important factors are perfect cleanliness of the skin and abundance of light and fresh air, which aid digestion in more ways than one.

The mother's milk of course takes the first place in infant feeding. In the rare cases when suckling is injurious to the mother, the author recommends Swiss condensed milk, properly diluted, as the best substitute. Only good milk can be used for condensing. It is never half-churned, like country milk, on its journey to town, and is therefore less alterable, and, finally, it can always be obtained in good condition. Starchy foods, which include all advertised infant foods, cannot be digested by babies, and children fed on them are slowly starved.

"Pip" in "Great Expectations" was brought up by hand. What he must have suffered we can gather from the author's graphic description of hand-feeding. "When food is given by the spoon the child is generally laid upon its back, and the contents of the spoon rapidly pushed into its mouth as fast as it can swallow. The child has no option but to take it as quickly and in such quantities as the ignorance or knowledge of the nurse may dictate." By the use of the feeding-bottle this is to a great extent obviated. The child is not obliged to swallow more than it likes, simply because it has to work for it.

The history of the feeding-bottle is still unwritten. A quarter of a century ago it was a novelty in England. In Iceland and Lapland, at least, it seems to have been long used in a rudimentary form. In 1809, when Sir William Jackson Hooper visited Iceland, he found that the mortality among infants was terrible, which he ascribed to the custom which prevailed among the women of not suckling their children at all, or at most only for a few days, after which they fed them with cow's milk, which was taken through a quill with a piece of rag fastened to one end for sake of softness to the mouth. (Tour in Iceland, 2nd ed., 1809, vol. i., p. xcvi.) When Linnaeus was in Lycksele, Lapland, he says, "I remarked that all the women hereabouts fed their infants by means of a horn, nor do they take the trouble of boiling the milk which they administer, so that no wonder the children have worms. I could not help being astonished that these peasants did not suckle their children." (Lachesis Lapponica, vol. i., p. 178.) Now the feeding-bottle is widely distributed. The "Consul's Daughter" (see her admirable book, "The Peoples of Turkey,") was once present at a party of Bulgarian ladies where wine was handed round to the guests in a feeding-bottle. But C. W. Quin, in his interesting letter from Constantinople (CHEMIST AND DRUGGIST, June 15, 1872, p. 185), tells us of a Turkish mother whom he saw feeding her baby from a *gd*. Maw's feeding-bottle, and the inquiry if the said substitute for Nature's fount was as great a blessing to Anatolian *anas* as to Middlesex mothers, was answered by a flood of melodious Turkish, bestowing glowing eulogiums on the *Feringhees'* *Marifet* or Frankish fakement.

Dr. Baker rightly condemns the administration of drugs to children, whether they be sedatives or purgatives. No medicine should be given unless specially prescribed. The prevalent custom of giving some "simple remedy," and, if the child grows worse, then to ask advice, is both wrong and foolish. Doctors should be asked to preserve health rather than to cure diseases that might have been prevented.

There is a fine scene in "Vanity Fair" (chapter 38), where Amelia finds Mrs. Sedley in the act of surreptitiously ad-

ministering Daffy's Elixir to the infant Georgy. Would that every mother would resolve, like Amelia, that her child "shall not have any medicine but that which Mr. Pestler sends for him"! The notes on the commoner diseases of childhood in the appendix will certainly give mothers more intelligent ideas than most of them now have, and are not likely to increase miscellaneous dosing.

MR. STEDMAN, of Hoxton, has prepared, and is now widely circulating, a pamphlet entitled "The Nursery Doctor." The treatment of many of the complaints to which children are especially liable is briefly indicated, and as the author has had a special medical experience in this branch of practice his hints may be expected to be trustworthy. Of course his own specialties occupy the chief place in his pharmacopoeia, but other prescriptions are also given.

MESSRS. KELLY & Co. have lately published a fourth edition of their now established "Directory of Chemists and Druggists." It is as complete and as reliable as the editions of former years, and has been corrected by personal visits or by letters. Besides chemists and druggists, the various wholesale dealers and manufacturers supplying the trade are given in classified order, and in this edition lists of hospitals and dispensaries have been added. In the London section the great blemish is the constant repetition, under all sorts of headings, of the name and trade-mark of Messrs. Neustadt & Co. There are a few other indications of concessions to advertisers which are calculated to check the faith which we ought to place in a directory, but on the whole the work is a useful guide, and certainly is not a mere reproduction of other lists of names or former editions.

Irresponsible Chatter.

Dr. Richardson's speech at the Pharmaceutical dinner was undoubtedly the oratorical feature of the evening. The captain of the same name had already, in a neat little address duly flavoured with sulphurous fumes, shown what the family was capable of. Professor Roscoe, in a somewhat imposing manner, gave the impression that he was clearing the way for some announcements of an important character, but sat down before he got to them; Mr. Gant placed his hand in his shirt bosom like the pictures of William Pitt, but the resemblance closed with the attitude; Mr. Schacht had prepared some pretty ideas, but he did not take time to elegantly frame them: Mr. Sandford showed his Red Republicanism a little too strongly by finding nothing better to say of the Heir Apparent than that he had proved himself a good sportsman; but Dr. Richardson hit the mark perfectly. Flattery was skilfully mixed with mild rebuke—not rebuke of those of us who were present, but of those absent villains who traffic in the ills that flesh is heir to. His speech was just the right length, and it included, worked in with consummate skill, an elaborate advertisement of "peroxide of hydrogen, nitrite of amyl, the hydrides, the colloids, methylene bichloride, sodium ethylate, and methylal," introduced into medical practice by the speaker, and to be obtained in a state of the most perfect purity from Messrs. Robbins & Co., 372 Oxford Street.

* *

Some cynical gentlemen at the dinner declared that Dr. Richardson, teetotal enthusiast as he is, was enjoying his glass of champagne as well as the rest of the guests. He certainly had a champagne bottle by his side; he poured from it into a champagne glass, and drank the pounce. But the liquid was Zoedone, and the exhilaration it produced was phosphoric and not alcoholic. Zoedont preach one thing and practice another, after all; but neither does he take much pains to avoid the appearance of evil.

* *

It is not so long since that conversazioni were added to the tortures of modern social life. Most middle-aged persons will recall the fear and trembling which accompanied their

pronunciation of the luxurious-looking word. But they have surely existed among us long enough. Either something should be done to furnish up their well-worn attractions, they might with general approval be requested, as the French say of British pickpockets, to leave the land who hospitality they have abused. The theory that they were calculated to promote social intercourse is as shattered as the rose of last century. Your conversational gifts may be brilliant at a dinner-table and sparkling in the drawing-room, but at a conversazione you are necessarily reduced to inane twaddle. You do not care much, you say, for an affair yourself, but you go to please your wife, or your daughter, or your sweetheart. Surely, sir, you have never made a study of the feminine mind. One who had wrote

Some men to business, some to pleasure take,
But every woman is at heart a rake;

and millions have agreed with that dictum since. The conversazione is a very early station on the highway of the "Rake's Progress," and though the lady will protest that she has enjoyed herself, you may be assured that it was your charming society only which made the evening tolerable to her.

The Pharmaceutical Society has pared down the expense of a conversazione to about its lowest limit, but even they spend on that one dismal evening nearly as much as they pay throughout the whole year for vindictive the Pharmacy Act, legal consultations, and defending unsuccessful prosecutions of their members! But their share of the expense is only a trifle compared to what their visitors have to spend. Even in the building where they are supposed to be guests the latter must make the best bargain they can with some unknown and irresponsible being about storing their hats and umbrellas. Broughams, cabs, gloves, and tips run up the average expense to about half-a-sovereign each person, and at a moderate estimate the conversazione of last month, which was only meagrely attended, must have cost in all over 1,000*l*. The amusements offered for the money were dodging a thousand visitors as gloom as yourself, a violent brass band at the back of your head and a few vocalists in a suffocating concert-room shout tra-la-la in various discords. There has never been the slightest attempt to introduce any new feature into these so-called entertainments, and unless someone can think of a novelty for next year we shall most decidedly hope to see an end put to the repetition of such a costly, wearisome struggle as this to "elevate the status of the trade."

* *

A law protecting the apothecary from unholy competition prevails in Germany, but it has its drawbacks, as the following incident, reported in the *Gerichtszeitung*, of Breslau and the *Bunzlauer Pharmaceutische Zeitung*, witness. Apothecary-assistant B was comfortably fixed in bed, when the night-bell roused him from his slumbers. Descending he found a maid-servant, who asked in timid tones "5 pfennigs worth of Borsdorf apple-juice." B asked the interpellatrix for whose behoof this unwonted remedy was required, and received the reply that a certain midwife needed it. Having dispensed the drug and received halfpenny, he asked the maid to tell the midwife "that was an etcetera." Not long had he enjoyed his second sleep when again the bell resounded, and there in the porch was a timid maiden asking for a pennyworth of cinnamon lozenges. Again he served her, and she departed. But his troubles were only beginning. While he courted sleep for the third time, she reported to her master that the assistant had been waiting a very long time, and, consequently, before the night-bell clanged a third time, and this time the master himself appeared, and curtly threatened the assistant that he would make a report to the police. Even Tenacious Temper stirs at last, and the assistant responded as curtly. This was not prudent, for the visitor went direct to the police station, and denounced the apothecary's delay. The result was that B received an official document referring him to the law "of October 11, 1801, tit. iii. sec. 2 ff., demanding payment of a fine of 15*s*." B protested and paid. It is not quite certain, however, that he was fined, for the law cited refers only to prescriptions and not to retail dealing, and does not say how long the apothecary may delay before answering the night-bell. It is

ested that the master, who did not want any physic at night be punished "as a disturber."

* *

a chemist's shop just opened in the North of London issued a placard announcing that the proprietor was prepared to distribute gratis in the first month 10,000 sooth-powders for children cutting teeth. A gay young fellow, who went in on the Saturday night for a pennyworth of bear's grease, was presented with one of these. He tried to "swop" it for a bottle of lavender, but failed. He thought the perfume would have more immediate interest, but he and his young man have agreed that perhaps the soothing powder may ultimately prove the most valuable.

* *

st month we were favoured with a back-seat ticket for amateur dramatic performance in aid of the London Epileptic Hospital at St. George's Hall. The proceedings were under the patronage, the *immediate* patronage, it declared, of three Royal Highnesses, one Serene Highness, two dukes, two duchesses, four earls, three countesses, two lords, two ladies, and ourselves. The performers were the "Thalians" Amateur Company (accented on the "I"), they produced Boucicault's play of "London Assurance," the royalties, serenities, graces, and nobilities did not enter in any great force themselves: sent their servants to the play. The Thaliens performed exceedingly well. So that the audience enjoyed the play almost as much as the actors did themselves; which is saying a great deal. During the evening Mr. Chambre, representing the Thaliens, came on the stage and announced that after paying expenses they were able to pay over to the funds of the hospital 100 guineas, and amid loud applause he handed a cheque for that amount to the honorary treasurer of the hospital, Captain Vernon Morgan, who was sitting in face of him.

* *

Jonathan Hawes, whose pamphlet on "Civil Servants' Rights" we lately mentioned in this column, sends us a copy of a second edition of the said pamphlet, with "permission to condemn or otherwise." We are disposed to "condemn." We are most heartily with Mr. Hawes in his desire to obtain a Parliamentary inquiry into the system of regulating our State employes. We should be delighted to see tumbrils go past this office, each containing a dozen of them, every morning. What we object to in Mr. Hawes' pamphlet is the somewhat piteous tone of the appeal to "the nobility, aristocracy, and State clergy" of England. By all means let tradesmen show their teeth and bark, and bite, and need be, but they must make up their minds in the future to stand boldly on their rights, and not need any propping up from "nobility, aristocracy, or State clergy," or even from the THRONE, which Mr. Hawes thinks it necessary to mention with the profound awe of large capitalists.

* *

The suggestion made by one of our correspondents, that tradesmen should make themselves rulers of at least one of the powerful daily journals, is a practical one. The interests of tradesmen are, as a rule, shamefully ignored both in the House of Commons and in the press. Mr. Gladstone, we are told, in making his Budget speech the other night had to turn occasionally with a sweet smile to Mr. Bass to deprecate personal anger. He had to kneel to the landlords and bow to farmers with all the graces of a courtier. But when it came to paying for all these experiments, and schedule D was selected for the patriotic service as usual, who was there representing the smaller tradesmen, who most feel the pinch, and whom Mr. Gladstone needed to smile?

* *

Samuel Webb, of 434 Oxford Street, who has taken an active part among grocers in reference to the carrying on of retail stores by Crown servants, states in the *Observer* last week that when the Parliamentary Committee on the subject was about to meet just before the dissolution he sent out 3,000 circulars, asking tradesmen to attend, so as to make a quiet but effective demonstration in the House of Commons Committee Room. "Well," he says, "what was the result of the trouble? I regret to say that not more than the usual few—not twenty—were present."

The same gentleman also publishes a correspondence between himself and Sir Charles Russell, the Chairman of the Parliamentary Committee, from which it appears that 9 out of the 18 members of the old Committee lost their seats at the recent election, and that when these places are filled up the new Committee will go on at the point where the old one left off.

* *

Mrs. Partington says she don't believe in any of the quack rostrums; she considers them regimental to the human cistern. She knew one man severely injured in his diagram, and another whose elementary canal was disordered by their use. She says she trusts chiefly to high jinks and dirt, though she finds it useful to take an occasional dose of Piratic Selina.

* *

If ever a man deserved his name it is Mr. D. M. Lamb, of New York. He has invented a process which applied to silks, velvets, ostrich feathers, furs, carpets, gloves, or what not, will protect them from all the various injuries to which they are subject. The rains or the floods may come, coffee or claret may be poured on the fawn-coloured silk, its wearer, if of a literary turn, may wipe her inky fingers on her skirts, but no stain will result. The process consists in the application of some preparation of rubber dissolved in naphtha, but it is not the ordinary method of waterproofing as it does not fill up the pores and meshes of fabrics, but impregnates the fibre leaving the air to circulate freely between. Subsidiary recommendations are that fabrics so prepared will neither shrink, mildew, decay, nor be attacked by moths. Need we add that "a company is about to be formed to introduce this process," &c.

* *

Shopping will be invested with new charms of excitement when Civil Service Stores supply the wants of the population entirely, as the editor of the *Times* thinks is their destiny. Last month a post-office clerk went to the Bedford Street Stores to match an undershirt which he took with him. Not getting what he wanted, he rolled up his pattern, and put it in his pocket, whereupon the manager of the department gave him into custody. He was tried at a police court, and proved clearly that the parcel he put in his pocket was his own property. Of course he was acquitted, but we have not heard that the over-smart manager has been executed. The post-office clerks started those stores, and it is only ordinary (that is, usual) justice that other classes should enter into the benefit of their labours, and that they themselves should be buffeted and thrown into dungeons when they venture to present themselves as suppliants before the lordly clerks who now rule what were once their own counters.

* *

The thinking substance of the brain has been identified by materialistic physiologists as a compound of protogen and phosphorus. But they have not yet been able themselves to mix protogen and phosphorus so as to make a doll think. This was because they did not know correctly the composition of the stuff. There is no need for any further delay, however, in the manufacture of a mind, for a German chemist has discovered that the material is simply oxethyltrimethylammoniumoxyhydratelylopalmethylglycerinphosphorsaurine.

* *

Mr. Edison has really committed the unpardonable sin of inventing a patent medicine. He calls it "Polyform," and compounds it of chloroform, chloral, camphor, and aconite, to be used as a liniment for neuralgic pains. A vial holding about an ounce or so is sold in the United States for 6s. Mr. Edison is believed to have made all his previous inventions merely for the sake of getting a preliminary fame so that he might launch his new discovery on the universe with sufficient éclat.

* *

By the way, it has been reported that Zedone either has been, or will be, or might, could, would, or should have been, sold for thirty thousand pounds.

The "we" of the *Lancet* irresistibly reminds its readers of the frog in the tragic story related by Æsop. Some time ago Dr. Edis wrote to the *Times* on the cruelty to which young women in drapery establishments are subject in having to keep standing through a long day and seem to be busy. "We" duly followed, of course. One or two firms wrote to the *Lancet* to announce that they did provide seats. This seems to have suggested the opportunity of showing off, and therefore "we" announced that "we" should require all such establishments to send "us" notification that they had provided or would provide seats for their assistants under pain of "our" displeasure. "We" should publish lists of the humane establishments, and medical readers would be expected to advise their patients to deal with such only. It does not seem as if this tall talk has had much effect. On May 29 the *Lancet* was able to announce that two firms in London and one in Edinburgh had responded to the appeal. The requirement that firms are to help swell the *Lancet's* importance, or to be subject to all the injury which the *Lancet* can do them, is a piece of presumption bordering very closely on the illegal.

* *

The same journal has been well laughed at for its screeching self-congratulations on the appointment of the President of the Local Government Board to a seat in the Cabinet. It was more than half pretended that this had been done in direct obedience to special orders which had been published in the *Lancet*. It was evident that the writer had written in blissful ignorance of the fact that Mr. Gladstone's previous secretary of the Local Government Board (Mr. Stansfeld) had a seat in the Cabinet, and therefore it was quite possible that he had given Mr. Dodson the same honour as a result of his own judgment, and not as the consequence of the *Lancet's* dictation.

Bankruptcies and Liquidations.

W. R. BARRITT, Manganese Merchant, 66 Coleman Street, E.C.

AN adjourned meeting for the bankrupt's public examination was held before Mr. Registrar Murray on May 26. He filed a statement of affairs showing unsecured debts 2,986*l.*, and no assets, the following being a list of the principal creditors:—

	£	s.	d.
Atkins, C., Water Lane, E.C.	47	10	0
Brown, Janson & Co., Abchurch Lane, E.C.	64	1	3
Davies, J., Mount Pleasant, Barnsbury	22	10	0
Durant, T., 5 Guildhall Chambers, E.C.	120	0	0
Gifford, F., 1 Gresham Buildings, E.C.	125	0	0
Goode, C., Barry Road, S.E.	10	17	8
Greene, N., 3 Bartholomew Lane, E.C.	475	17	6
Hemming, J. L., 4 King Street, E.C.	265	0	0
Hogan, G., 23 Martin's Lane, E.C.	200	0	0
Jackson, H., Dunedin House, Surbiton	200	0	0
Jennings, Edward, Bournemouth	500	0	0
Kennall Gunpowder Company, Penryn	50	10	0
Kreamer, G. A., Southampton Street, Fitzroy Square	48	10	0
Lloyd, Edward, Leadenhall Market	25	0	0
Miles, C. R., 4 Broad Street Buildings, E.C.	97	0	0
Nicholls, J., 4 Great Winchester Street, E.C.	13	15	0
National Provincial Bank of England	37	0	0
Parry, E., 18 New Bridge Street, E.C.	125	0	0
Rowe, F. A., Lorne Road, Haverstock Hill	142	9	4
Stacpoole, R. W., Pinner's Court, E.C.	43	0	0
Stollard & Whitling, South Molton Street, W.	51	7	0
Sharp, J. C., Shaftesbury Cottage, Croydon	92	10	0
Williamson, J. W., 4 Stone Buildings, W.C.	160	0	0
Wright, C. E., 4 Great Winchester Street, E.C.	31	10	0

The trustee stated that he had been only recently furnished with a copy of the accounts, and he required further time to examine them. He was informed by the bankrupt that he intended to make an arrangement under section 28. His Honour, with the consent of the bankrupt, granted a further adjournment to June 23.

J. E. GODDARD, Druggist, 37 Chapel Street, Belgrave Square, and Kensington.

THE debtor filed his petition for liquidation in November last, returning his liabilities at 438*l.*, against assets 547*l.*, and it was resolved that his estate should be liquidated by

arrangement, Mr. E. Goddard, of West Chapel Street, Manchester, and Mr. E. Cogswell, of St. Thomas's Buildings, Southwark, being appointed trustees. The case was brought before Mr. Registrar Brougham on the 3rd inst., upon a hearing of an application on behalf of Mr. E. Goddard that his co-trustee, Mr. Cogswell, should be ordered to pay a sum of 157*l.*, alleged to have been received by him, into account to the credit of both trustees. After hearing affidavits and statements on both sides, the Registrar ordered Mr. Cogswell to pay 103*l.* 2*s.* 6*d.*, within seven days, into joint account of the trustees at the London and Province Bank.

MEINERTZHAGEN & TURNER, Drug and Colonial Merchant, 9 Mincing Lane.

THIS case was brought before the Court on May 21. The debtors, trading under the firm of "Meinertzhagen, B. & Co.," had filed their petition for liquidation, and Mr. F. Knight applied for the appointment of Mr. J. Waddell, accountant, 11 Queen Victoria Street, as receiver and manager of the estate. The application was supported by an affidavit of Mr. Meinertzhagen, who stated that the liabilities of his firm amounted to 20,000*l.*, or thereabouts, but he believed that not more than 5,000*l.* would be realized against the estate. His firm had entered into various contracts for the purchase and sale of drugs, spices, and other commodities, and some of the contracts were unfulfilled. If they were carried out they would prove a source of profit to the estate, and it was, therefore, desirable for a receiver and manager to be appointed. Mr. Registrar Pepys made the appointment.

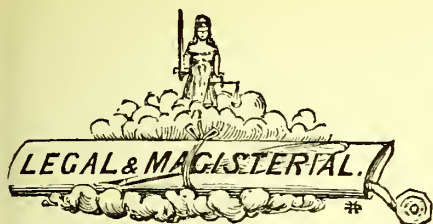
PHILLIPS & COX, Chemical Agents and Merchant, 17 Philpot Lane.

THE debtors had presented a petition for liquidation, their affairs were brought before the Court on May 15. Naunton applied for the appointment of Mr. H. J. Price, accountant, 10 Old Jewry Chambers, as receiver and manager of the estate, in order that the business might be carried on until the first meeting. The debts were estimated at about 4,800*l.*, and assets 2,500*l.*, consisting of stock, furniture, fixtures and effects, and book debts. The application was supported by creditors for about 1,300*l.*, and Mr. Registrar Pepys made the desired appointment. The following creditors, secured and unsecured, have been scheduled:—

Atkins, T. R., Dunster House, E.C.	188	5	0
Candery, W., & Co., Fenchurch Street	500	0	0
Cox, Henry, & Co., Buckland Street, Hoxton	293	10	0
Central Bank of London	296	6	0
Charles & Fox, Mincing Lane	455	0	0
Foster, F. A., 93 Gracechurch Street	38	0	0
Forster & Co., Newcastle-on-Tyne	107	10	0
Franklin, F., Bankside	18	0	0
Hyslop & Symonds, Mincing Lane	325	0	0
Holmes, W. H., & Sons, Newcastle-on-Tyne	81	9	0
Hes, B., & Co., Marshgate Lane, Stratford	61	4	0
Joyce & Co., Great St. Helens	80	2	0
Knight, Hill & Co., Billiter Street	261	2	0
Leese, R., 69 Mark Lane	85	16	0
Lamb, Hopwood & Co., Mark Lane	13	0	0
Middleton & Co., 4 Cullum Street	250	0	0
Merchants and Shippers' Wharfage Company	22	2	0
Naunton, G. W., Cheapside	25	0	0
Smith, Francis & Co., Newcastle-on-Tyne	408	7	0
Sharwood, F., & Co., Bishopsgate Street Within	119	4	0
Simmons, J., New Road, Paternoster Park	32	5	0
Slade, Mitford & Co., Upper Thames Street	16	19	0
Tyne Steam-ship Company	19	17	0
Voss, M. H., Bankside	28	17	0
Wilson & Co., Jubilee Street, Mile End	30	0	0
Watson, Kipling & Co., Sunderland	117	0	0
Zurnbeck, A., & Co., Mincing Lane	560	0	0

J. E. ROBERTS, Chemist and Druggist, 2 Fernhead Row, Harrow Road.

THE debtor has filed a liquidation petition, and Mr. S. Godfrey applied to the Court on the 3rd inst. for the appointment of Mr. W. E. Dawes, accountant, Cannon Street, as receiver, and for an injunction restraining an assignment. The liabilities were about 700*l.*, with assets, consisting of stock and furniture and goodwill of the business, of an estimated value of 450*l.* Mr. Registrar Brougham granted the application.



THE WEIGHTS AND MEASURES ACT.

SIX chemists were summoned to the Southwark Police Court on May 19 for contravention of the Board of Trade's Order of Council in respect to apothecaries' weights and measures.

Mr. Wilkinson, chemist and druggist, 114 Lambeth Walk, was prosecuted by James Strongnell, inspector. The latter said he had seized 17 weights on defendant's premises on April 20. Eight of the weights were too heavy and nine too light, and were as follows:—One 2 drachm weight (+ $\frac{1}{10}$ grain), one 2 drachm weight (+ $\frac{5}{10}$ grain), one 2 drachm weight (+ $1\frac{1}{2}$ grain), two 2 drachm weights (− $1\frac{1}{2}$ grain), one 2 drachm weight (−1 grain), one 1 drachm weight (− $\frac{1}{10}$ grain), two 2 scruple weights (− $\frac{3}{10}$ grain), one 2 scruple weight (−2 grains), one 4 grain weight (+ $\frac{1}{2}$ grain), four 4 grain weights (+ $\frac{3}{10}$ grain), one 3 grain weight (− $\frac{1}{10}$ grain), one 3 grain weight (− $\frac{3}{10}$ grain).

In reply to Mr. Glaisyer, Solicitor to the Chemists and Druggists' Association, who defended, the witness said he examined the avoidupois weights upon defendant's premises and found them all correct. The standard for apothecaries' weights was issued last August, and not at the time the Act was passed. He believed all or most of the weights seized were in use. They were in a small drawer under the scales. He thought some of them were new and believed defendant handed them to him. He did not remember whether defendant told him how recently he had his weights examined. Witness had not published any notice of the standard set up for apothecaries' weights. He believed defendant or his assistant asked to be recommended to buy fresh weights, but as a rule witness did not recommend anyone as it would be unfair to the different makers. Witness advised defendant to get fresh weights, and he promised to do so.

Glaisyer: Is this the first case of a chemist being brought before the Court with respect to apothecaries' weights?

Witness: Yes, I believe it is.

Glaisyer: Here or elsewhere?

Witness: Yes, I believe so.

Glaisyer said he was not prepared to dispute the statement of the inspector, and he accepted the fact that some of the weights were heavy and others light. He would, however, in mitigation of the penalty, that defendant, as he had been able to do so, had had his weights tested periodically. There was no charge with regard to avoidupois weights, which the inspector found perfectly correct. With regard to the apothecaries' weights standard had been set up more recently than the Act of 1878, and the defendant, in common with his brother chemists, was unaware that the standard had been started. Moreover, the person who had examined the defendant's weights had not corrected apothecaries' weights to examine them. This was the first case of the kind, and might have been a warning to chemists throughout the country to have their weights according to the standard. Four of the weights, he was told, were perfectly new and had never been used and were supplied by a first-class firm. Until recently there was no standard by which dispensing weights could be properly tested, and immediately defendant knew this was required he purchased new weights stamped and marked.

Mr. Mews (Chairman on the Bench) said: As this is the first case which has been brought, we shall simply order the defendant to pay a nominal fine. It is quite necessary that chemists, as well as persons in other businesses, should have correct weights. The fine is 1s. on each weight, altogether 17s.

Horatio Pass, chemist and druggist, 245 Walworth Road, Lambeth, was also fined 1s. in each case for having 12 incorrect apothecaries' weights, viz.:—One 2 drachms (+ $\frac{3}{10}$ grain), two 1 drachm (+ $\frac{3}{10}$ grain), one 2 scruples (+ $\frac{1}{10}$ grain), one 2 scruples (−3 grains), one $\frac{1}{2}$ scruple (+ $\frac{1}{10}$ grain), one 1 scruple (+ $\frac{3}{10}$ grain), one 1 scruple (− $\frac{1}{2}$ grain), one 6 grains (+ $\frac{3}{10}$ grain), one 5 grains (+ $\frac{3}{10}$ grain), one 3 grains (+ $\frac{3}{10}$ grain), one 2 grains (+ $\frac{2}{10}$ grain).

In this case defendant pleaded that he did not know the Act was in operation; that he had been unable to get any information on the subject. He added that there appeared to be a difficulty as to whether weights stamped in one district would be right in another.

Magistrates' Clerk: The Act is in operation all over the country.

Defendant: But you cannot get the weights stamped in the different districts.

Messrs. Poingdestre & Truman, chemists and druggists, 187 Newington Butts; Edward Wood, chemist and druggist, Northcross Road, Crystal Palace Road; and Robert John Smith, chemist and druggist, 38 Thornton Street, Horselydown, Surrey, were also ordered to pay small fines for having incorrect apothecaries' weights.

These offences were proved by Mr. James Webb, Inspector, and George Carr, his assistant.

Defendants all pleaded ignorance of acting illegally. Mr. Smith said some of the weights seized upon his premises had not been in use for thirty years, and that until the seizure he was unacquainted with the new Act. Mr. Wood stated that weights seized upon his premises had been used merely for compounding, and not for retail.

In each case the weights seized were forfeited.

Personalities.

THE KHEDIVE OF EGYPT has conferred the rank of Miralâi, or Bey, on Dr. Grant, a well-known English physician in Cairo. Dr. Grant Bey conducts in Cairo an invalids' home for English visitors, and we believe he is also in the service of the Egyptian Government.

MR. GEORGE D. ROSENGARTEN, of Philadelphia, the head of the well-known firm of Rosengarten & Sons, quinine and chemical manufacturers, has retired from business at the age of 80. He has been connected with the wholesale drug trade since 1822. The business will be carried on by his sons. The Philadelphia Drug Exchange passed a series of complimentary resolutions to Mr. Rosengarten, and made him an honorary member of their association.

IT IS A FACT worth noting, says *Nature*, that M. Chevreul, who is now in his ninety-fifth year, has begun his course on Chemistry at the Paris Museum of Natural History with as much apparent zest and energy as he did fifty years ago when he first entered on his duties of that chair. The programme of his course, *Les Mondes* informs us, is beautifully and firmly written in his own hand. Notwithstanding his approach to the centenary, he still looks young and fresh.

THE FOLLOWING GENTLEMEN were elected Fellows of the Royal Society at the meeting of the Society on June 3. The list will be found to include several names of pharmaceutical eminence:—Thomas Clifford Allbutt, M.A., M.D., F.R.S.; Professor John Attfield, Ph.D., F.R.S.; Henry Francis Balfour, F.R.S.; the Rev. William Henry Dallinger; Wm. Turner Threlton Dyer, M.A., F.R.S.; Lieut.-Colonel Henry Haversham Godwin-Austen; the Right Rev. Charles Graves, D.D., Bishop of Limerick; Professor David Edward Hughes; Henry M. Jeffery, M.A.; Professor Frederick McCoy, F.R.S.; J. Fletcher Moulton, M.A.; Professor Charles Niven, M.A., F.R.A.S.; John Rae, LL.D.; Professor J. Emerson Reynolds, M.D.; William A. Tilden, D.Sc.

BEER. — Great Britain manufactured last year 1,545,500,000 gallons of beer. The United States only got to 336,300,000 gallons. The accounts for Germany cannot be totalled by any known mathematicians.

Trade Notes.

IT WILL BE SEEN, from our advertisements, that Messrs. H Sugden Evans & Co., of Montreal, are open to take agencies of European proprietary goods for Canada and the United States of America.

* *

A MEDICINE CALLED TIC-SANO has been introduced for neuralgic and rheumatic pains. The proprietors assure us that its ingredients are not in the British Pharmacopœia, and have never been used in this country before.

* *

GINGERETTE AND LEMON GINGERETTE are excellent specimens of non-alcoholic liqueurs. They may be taken as cordials, neat, or with water, plain or aerated. In the latter form they yield a delicious draught. Wine or spirits may be added if taste so dictate. These preparations are made by Mr. Wm. Whysall, pharmaceutical chemist, Grantham.

* *

MR. ANCILL, lately manager of the Chemists' Aerated Waters Association, it will be noticed by advertisement, has very promptly floated another company for the manufacture of aerated waters, under the title of "The General Mineral Waters Supply Association (Limited)." It will be seen that this company propose to allow for empties, a point which has occasioned some dispute among the members of the other association.

* *

THE LIEBIG'S EXTRACT OF MEAT CO. (LIMITED) report a profit for the year ending March 31, 1880, of 83,928*l.* 2*s.* 10*d.*, which is 5,000*l.* less than last year. The slight reduction is caused by a lower value of hides and other waste products. The shareholders receive their usual 10 per cent. dividend, 20,000*l.* is carried to the reserve fund, and 6,620*l.* is carried forward.

* *

WE HAVE RECEIVED a sample of Saville's Capillary Generator, prepared by Mr. John T. Saville, of 146 Regent's Park Road. No doubt the announcement of a hair-producer is one of the most ready means of tickling human vanity. Mr. Saville sends us also a parcel of letters received by him, undoubtedly original ones, which all testify to the benefits derived by the use of his preparation.

* *

WE HAVE RECEIVED a beautifully-illustrated price-list of chemical apparatus from Messrs. Elmore & Richards, of New York. A good idea gathered from the list is a set of reagent bottles with the name engraved on white enamel labels in front of the bottle (*e.g.*, Acid Nitric), and the chemical symbol engraved in similar style (HNO_3) across a broad stopper with flat top. This enables a set to be kept in a sort of bin case, showing only the tops. We notice that the assay furnaces, muffles, clay crucibles, &c., manufactured by the Plumbago Crucible Company, of Battersea, are very prominent in these pages.

* *

THE SYDNEY EXHIBITION AWARDS.—In the list we published last month the name of J. Paul Siebe, of Dresden, was given; it should have been J. Paul Liebe.—Mr. Hickison, we understand, has been awarded the silver prize medal for his marking ink (the daughter of the late John Bond's).—Messrs. Waterston & Sons, of London and Edinburgh, who exhibited their "Bee" brand of sealing, bottle, and parcel wax, have obtained the highest award (gold medal).—Messrs. Arnold & Sons, of Smithfield, who took a gold medal for surgical instruments, we are informed, had never ex-

hibited before.—The case of medicines shown by Messrs. Richardson & Co., of Leicester, and which gained for them their fourth gold medal, included a variety of their very compact medicine-chests for emigrants and colonists, and also their emergency case, for colonial surgeons. It may be assumed that the Sydney judges were able to appreciate these.—A gold medal has been awarded to Messrs. W. Bush & Co., of Artillery Lane, London, for essential oil of fruit essences, and colours.

* *

THE ANGLO-AMERICAN DRUG COMPANY (Limited) been formed to purchase from Mr. Henry Clay Gallup, 493 Oxford Street, a half-share in the articles sold by him as Fragrant Floriline and the Mexican Hair-renewer. Mr. Gallup is to receive for the above 23,000*l.*, all in full paid-up shares of the company, and he is to be appointed managing director of the business for ten years. The capital of the company is fixed at 200,000*l.* The subscribers are:—

Jesse Willows, wholesale druggist, 101 High Holborn.

Thomas Harper Francis, wholesale druggist, 101 High Holborn.

Robert Hussey, wholesale druggist, 101 High Holborn.

Henry Critchett Bartlett, consulting analytical chemist, Ph.D., F.R.S., 39 Duke Street, Grosvenor Square.

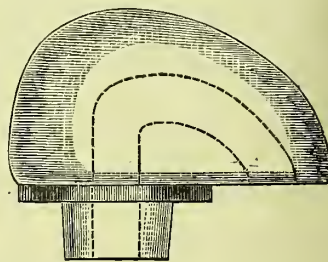
William John Clarke, advertising agent, Milton House, Romford, Essex.

Thomas Platt, advertising agent, 15 Approach Road, Victoria Park, London.

Henry Clay Gallup, Preston House, The Avenue, Upper Norwood.

* *

ONE OF THE CHIEF OBJECTIONS to the patent stoppers for bottles of aerated water has been the frequent splash of liquid flying into the face, up the sleeve and over the head when an aerated water is highly charged. A small im-



provement of Messrs. Gardner & Co., of Neath, obviates this trouble. The opener is bored through and is fitted with an india-rubber ring to act as a washer. Any water which would otherwise spurt consequently passes through the tube into a glass in a reasonable manner.

* *

MR. MATHER'S BUSINESS.—A large number of chemists and druggists will learn with surprise that the London business of the late Mr. William Mather will be entirely carried on the 26th of this month. The present Mr. Mather would seem, has preferred to confine his attention to the manufacture at Manchester of the specialties so long associated with the name of his father, such as plasters, febrifuges, bottles, and fly-papers. The London and export agencies for Mr. Mather's goods will, however, from the above date be carried on by Messrs. Mace & Haldane, two gentlemen who have for many years occupied prominent positions in the firm, the first as manager of the export department, and the latter as head of the counting-house. Messrs. Mace & Haldane have taken premises at 77 Milton Street, E.C.4, and they will probably represent other manufacturers as Mr. Mather. The London premises of the firm, which are freehold, are to be sold by auction by Messrs. Tatnall & Co. on June 28, as will be seen by an advertisement elsewhere.

THE CHEMISTS' AERATED AND MINERAL WATERS ASSOCIATION (LIMITED) have lately held two special meetings to have to some extent reorganised their affairs. The promoter of the company, and hitherto its manager, Mr. Bell, has been persuaded to resign, the other directors, however, believe, regarding his methods as too extravagant. The prerogative scheme seems to have been too large an affair for the company, and they resell the Montpellier Gardens to their former owner for 500*l.* less than they gave for them. In return are to have a lease of a certain portion of the property, and the sole right of bottling the natural mineral waters of those gardens, paying a certain royalty to the owner. The company is endeavouring to raise more capital by means of shares in order to carry on the business of the association more efficiently. The chairman (Mr. Horace Denport) regretted that chemists did not more readily understand the principle of co-operation on which the society was worked. Members seemed to think they were being misled from the directors, and the money paid for bottles could be returned to the members. The fact was that the directors were merely agents for the members, and purchased bottles from the manufacturers for them. We understand that several hundred pounds of new capital have already been raised.

Obituary

APPLETON.—On May 11, 1880, Mr. Joseph Hill Appleton, chemist and druggist, Attercliffe. Aged 69 years.

BELLERBY.—On April 30, 1880, Mr. William Bellerby, chemist and druggist, Newcastle-on-Tyne. Aged 61 years.

BRUNT.—On January 6, 1880, Mr. Edwin Brunt, chemist and druggist, Hyde. Aged 23 years.

BRUNT.—On April 25, 1880, Mr. Thomas Henry Brunt, chemist and druggist, Hyde. Aged 48 years.

CLARKE.—On May 2, 1880, Mr. William George Clarke, chemist and druggist, late of Sudbury. Aged 48 years.

MULDER.—Dr. J. G. Mulder, Professor of Chemistry in the University of Utrecht. Aged 77 years.

OGDEN.—On May 19, Mr. Hiram Ogden, chemist and druggist, Broughton, Manchester. Aged 46 years.

RANKIN.—On May 7, at Troon, Mr. William Rankin, pharmaceutical chemist, late of the firm of W. Rankin & Co. Kilmarnock. Aged 78 years.

SMART.—On April 26, 1880, Mr. David Smart, chemist and druggist, Port Glasgow. Aged 36 years.

STODDART.—William Walter Stoddart, F.I.C., F.G.S., was born February 24, 1824, at Frestiford, near Bath. He was first placed, on leaving school at the age of 16, in a carpet manufactory with his father at Kidderminster, where he learned the usual routine of weaving and dyeing. After five years this was given up for chemistry, in which he took a special interest. He then became the pupil of Mr. F. H. Stoddart, now a member of the firm in Aldersgate Street. Afterwards he lived for six years with Messrs. Stoddart & Smith, of Bath, and subsequently commenced business for himself in Bristol. Most of his time for recreation was spent in various scientific pursuits, and he occasionally contributed papers to various publications. Amongst others we may mention "A Singular Compound of Iron and Quinine," and "On the Growths and Nature of the Ventricle." He afterwards paid special attention to the potable waters of Bristol and the air of town dwellings. He also read a paper "On the Lias Formation of the Bristol Neighbourhood" before the Geological Society of London, geology being always a favourite study of his. He was a member of the Pharmaceutical Council for some years, but latterly his time was so much taken up that he was obliged to relinquish those duties. He was President of the British Pharmaceutical Conference at Liverpool and

Edinburgh (1870-71). For the last five years he was Public Analyst for the City and County of Bristol, the County of Somerset, and afterwards for the City of Salisbury, boroughs of Bridgwater, Chard, and Devizes. His health began to fail a few months ago, and his death took place at his residence on May 30, in the 57th year of his age. He was buried on June 3 at Stoke Bishop.

TAYLOR.—On April 16, 1880, Mr. Henry Taylor, chemist and druggist, Newbury, Bucks. Aged 63 years.

TAYLOR.—On May 27, Professor Alfred Swayne Taylor died in his 74th year. He entered Guy's Hospital as a student in 1823, and subsequently visited most of the medical schools in France, Italy, and Germany. He was the first professor of Medical Jurisprudence at Guy's Hospital, and his "Manual of Medical Jurisprudence" and "Taylor on Poisons" are well known to pharmacists.

WILLIAMS.—On April 20, 1880, Mr. William Thomas Williams, pharmaceutical chemist, Cardiff. Aged 26 years.



LIQUIDATIONS.

CROFT, JOHN HENRY, Sheep Street, Bicester, surgeon and apothecary June 2.

DAVIES, THOMAS, 208 North Hill Street, Toxteth Park, Liverpool, chemist and druggist; also 19 Great George Street, Liverpool, corset maker, trading as E. Muldowney. May 18.

GETHEN, WILLIAM, 30 High Town, Hereford, chemist, &c. May 15.

HEALD, BENJAMIN, New Sleaford, chemist and druggist. May 6.

MEINERTZHAGEN, EDWARD JOHN HENRY, & TURNER HENRY, 9 Mining Lane, and Court Hill Road, Ladywell, Lewisbam, under firm of Meinertzhagen, Bell & Co., drug and colonial merchants. May 20.

MERCER, GEORGE, Market Street and Tenterhill, Wooler, chemist, &c., tobaccoist, and grocer. May 8.

PHILLIPS, THOMAS, & COX, HENRY NORRIS, 17 Philpot Lane, chemica agents and merchants. May 11.

SNEYD, THOMAS, Walsall, chemist and druggist. May 31.

SPALDING, WILLIAM RICHARD, Wheatsheaf Terrace, Leyton, chemist and dentist. June 1.

DIVIDEND.

WRIGHT, J., chemist and dentist. Second and final of 1*s.* on and after May 14, at trustee, Lovewell Blake, Hall Quay Chambers, Great Yarmouth.

PARTNERSHIPS DISSOLVED.

DAVIDSON & LESLIE, Castle Place, Belfast, chemists. July 1, 1879. (Andrew Davidson and James Leslie.) Debts by Leslie.

LEATHAM, COULTER & HOWARD, Queen's Square, Belfast, wholesale grocers, druggists, and general merchants. May 13. (George Denham Leatham, John Coulter, and James Jerrold Howard.)

MASSEY, H., & CO., Church Street, St. Helens, drug, chemical, and oil dealers, also estate and commission agents. May 15. (Henry Massey and Robert Cassius Goldsmith.) Debts by Massey.

NESTLÉ, HENRI, Barbican, in vending Nestlé's milk food. January 31. (Jules Monnerat, Gustave Marquis, and Robert Henry Cullen.)

MEDICINE IN EGYPT.—The following from the *Egyptian Gazette* seems to show that there is room for smart doctors in the land of the Pharaohs:—"It may sound strange in the ears of European doctors, but it is nevertheless true, that chloroform is not used at all in the native hospitals and scarcely ever by native doctors in their private practice. It is not so very many years ago since one of the most celebrated native surgeons withdrew from a case, in which death must have ensued had not a European surgeon insisted on using chloroform in the case. The native surgeon said he had never given it, nor would he in this case (although the patient was his) take any responsibility in the matter. It is evident that the European element is required, not only in financial and other departments, but also in the Medical School." There is a medical school in Cairo, but if it is managed by native talent the students are not likely to bear of any modern improvement in the same century which witnesses its discovery.



A GENERAL tone of dulness has come over the trade of the country, and this is especially noticeable in the markets which we have to report. The official returns for last month, while they indicate an improvement over the figures of May, 1879, show clearly enough that a pause in the improvement has been arrived at, if, indeed, the check may be interpreted in that satisfactory manner. Not only is there a shrinkage in the volume of trade transacted, but the fall in values is becoming very marked. Of course, to a great extent, the present depression is the necessary consequence of the speculative excitement of six months ago, but in the ordinary course the effects of that period should have nearly spent themselves by this time.

The Board of Trade returns for May give a total of 17,277,876*l.* as the value of our exports; in May, 1879, the amount reached was 16,520,490*l.* The exports of chemicals are thus stated:—

	May, 1879	May, 1880
Alkali	cwt. 598,471	535,127
Alkali	value £187,638	204,230
Chemical products	£171,546	185,595

The fall in chemicals still continues, though in soda there is a distinctly firmer feeling within the past week. Crystals, for example, which have been down to 63*s.* 9*d.*, have recovered to 66*s.* 3*d.*, rather lower than last month, but not the lowest point touched. A good stock is said to be still held in second hands, and the market can hardly be safe while this continues; but the upward tendency now noted may cause most of them to hold with more firmness, and thus help it onward. Citric and tartaric acids and cream of tartar have not fully maintained their late high prices, as speculators desire to unload when summer contracts are mostly completed. Borax is a little easier than it has been.

Speculation has nearly deserted the produce markets, and in most articles stagnation prevails. Opium is still held by the Anglo-American syndicate, but it is impossible to predict the future of this article until reliable reports of the new crop are received. Sales of good Turkey have been made in London last week at 23*s.* 6*d.*, and it is said that the Smyrna price for a similar quality is 27*s.* 6*d.* The new crop is variously estimated at 2,000 to 4,000 baskets, and with such a margin nothing approaching a valuable opinion can be formed. Barks have hardly maintained their ground. The sales have been without animation, but good workable qualities have sold at steady rates. A slight decline in quinine is quoted. The holders of camphor have had to give way, and raw and refined are a good bit lower. Copaiba balsam is still scarce, and is held firmly for high prices. Peru is held for 10*s.* 6*d.* Cinnamon was very dull at late sales, and marked a fall of 4*d.* to 5*d.* Cochineal and cardamoms have also sold in favour of buyers. Calumba root is scarce and is worth 5*l.* per cwt. The price for essential almond oil is much dearer, and lemon and bergamot are fairly maintained. Otto of roses is expected to be plentiful and of fine quality. There is no notable change in gums, except that Turkey is rather easier.

Of drugs at auction not quoted in our list we may name bael fruit bought in at 1*s.* 6*d.*; Calabar beans sold at 1*s.* 0½*d.*; elaterium sold at 4*s.*; ergot of rye at 1*s.* 11½*d.*; honey from Buenos Ayres, and also some from Hamburg, rather yellow, bought in at 45*s.*; jaborandi leaves bought in at 1*s.* 2*d.*; areca nuts at 38*s.* Brands of essential oils were bought in at the following rates:—Fisler's mace, 4*d.* per oz., Quettin's

wintergreen, 14*s.*; Dodge & Alcott's, 14*s.*; & Quettin's peppermint, 12*s.*

Shellac, which fell rapidly to the end of May, has since taken a turn upwards, and is now nearly at the same price as a month ago.

The oil market offers no exception to the general tone of quietude. Olive has a tendency towards lower prices, and reports from Messina indicate that a bountiful crop may be expected. Linseed and rape are steady in price, but all oils are still further declining. Turpentine has commenced to decline, and the downward movement may be expected to continue, as new arrivals will ensure a regular market. Quotations for a month in advance are at 27*s.*, and for oil to December 23*s.* Petroleum is fractionally stronger. The market has been enlivened during the month by a dispute between the brokers and the Petroleum Association as to the right of the former to claim from the Association discounts of certificates as to the "new test." The brokers had sold "new test" oil on the anticipation that what had been bought under "old test" certificates could be sold with a "new test" certificate. The refusal of the Association to grant these certificates caused an artificial famine for oil while in "new test" oil.

Stocks of drugs in the port of London stood as follows on May 31:—

	1880	1879		1880	1
Aloes	1,421	1,671	Gum (cont.)—		
"	12	11	Galbanum pkgs	12	
"	280	755	Gamboge ..	145	
Aniseed, Star chits	410	615	Guaiacum ..	65	
Arrowroot	13,166	12,332	Kino	34	
" bxs & tins	14,544	11,563	Kowrie	446	
Balsam	19	39	Mastic	125	
Bark, Medicinal			Myrrh, E.L.	171	
cks, &c.	697	154	Olibanum ..	3,971	2,
sms, &c.	19,676	13,278	Sandarac ..	382	
Borax	570	628	Senegal	21	
Bees' Wax			Nux Vomica pkgs	2,738	1
"			Tragacanth pkgs	130	
"	802	593	Ipecac	235	
"	2,198	2,596	Jalap	995	3
"	124	27	"		
Wax, Jap. veg. pkgs	11,570	4,422	Oil—		
Camphor	6,651	10,226	Castor	338	
Cardamom	425	556	Palm	15,138	1
Coco, Ind. bgs, &c.	1,365	1,597	"	1,022	1
Colombo root pkgs	360	559	Cocoonut	5,923	4
Cream Tartar	147	101	Olive	1,221	1
Cubeb	182	162	Aniseed	247	
Dragonsblood chits	173	50	Cassia	349	
Galls, E.L. cks &c	3,567	2,583	Opium	982	
M'terranean sks	562	916	Rhubarb	962	1
Gum—			Sarsaparilla	550	
Ammoniac pkgs	397	491	Senna	1,810	
Animi & Cojal			Shellac		
pkgs	1,897	3,868	Orange	23,006	2
Arabic, Barbary			Garnet	14,582	10
pkgs	2,376	1,388	Button	2,558	
Turkey ..	3,149	787	Gambier	2,945	
E.L.	1,990	1,659	Cutch	676	
Assafoetida pkgs	292	532	Fortoliesbell, &c.	209	
Benjamin ..	2,198	1,100	Turmeric	3,054	
Damar ..	4,570	280	Vermilion	150	

WHAT IS THE BEST REMEDY FOR BOILS.—Sulphide of calcium, undoubtedly. A tenth of a grain should be taken hourly, or every two or three hours. It lessens the inflammation, and reduces the area of the boil. Moreover, it liquefies the core, so that it separates more speedily, and the troublesome little vesicle is induced to take its departure. When the skin is not broken, and the slowly separating core not exposed, the medicine often converts the boil into a little abscess, which soon bursts, and the whole thing is over. If the sulphide is taken sufficiently early, the boil often dries up, the inflammation subsides, and a hard knot is left, which disappears in a few days without the formation of a mark, and without any discharge. The sulphide exerts a marked influence on the general health, removing the debility and *malaise* so frequently associated with these eruptions. Not only will the sulphide of calcium, taken in the manner here indicated, cure existing boils, but it will often prevent the formation of fresh ones.—From Cassell's *Family Physician* for June.

Exchange Column.

TERMS.—Announcements are inserted in this column at the rate of one halfpenny per word, on condition that name and address are added, and name and address to be paid for. Price in figures counts as one word.

If name and address are not included, one penny per word must be paid. A number will also be attached to the advertisement by the publisher of THE CHEMIST AND DRUGGIST, and correspondence relating to it must be addressed to the "Publisher of THE CHEMIST AND DRUGGIST, Colonial Buildings, Cannon Street, London, E.C.," the envelope to be endorsed also with the number. The Publisher will transmit the correspondence to the advertiser, and with that his share in the transaction shall cease.

Deposit of Money.—In order to ensure safety we offer the following system:—The purchaser of anything advertised in the Exchange Column may remit the amount to us. We shall acknowledge receipt to both parties by post-cards, and shall only pay it away on the order of the remitter. Whether returned to us or paid to the seller, we shall charge a commission of 2½ per cent. on any money thus passing through our hands, and not less than 6d. on any single transaction. This arrangement would entirely prevent any cause of complaint or dissatisfaction arising out of this section of THE CHEMIST AND DRUGGIST.

FOR DISPOSAL.

Dental and Surgical.

Pulvermacher's chains, cost 42s. each, nearly new, only used once, quite clean; 22s. for the two. A. Deek, Cambridge.

Antipyretics of trusses, much soiled, otherwise good; various sizes. What offers? Will be sold cheap. Young, Chemist, Warrington.

Drugs and Chemicals.

White gum siftings. 159/22 E.

Triage paid.—16 oz. morph. hydrochlor., B.P., 10s. per oz. 160/11.

Res Barb., aloes Cape, Chinese blue, Prussian blue, tin crystals, extract indigo. 159/22 D. wt. citric acid, English, 2s. 3d. per lb.; 4 cwt. salicine, 14s. per lb. Mark Cooper, Chnrch, Lancashire.

One or three Winchester's bals. copaiba; 112 lbs. pure soda bicarb., hds. Apply, Bratley, Chemist, Pontefract.

McFarlane's morph. mur., 10s. 6d. oz. Allen Smith, Chemist, Sale.

1-oz. bottles McFarlane's morphia. What offers? "Chemist," 107 Prescott Street, Liverpool.

Morphia acet., in oz. bottles, manufactured by Smith. What offers? Everitt, Clerkson Street, Mansfield, Notts.

1 lb. of the finest Turkey opium, in splendid condition, to be sold in one lot. What cash offers? R. T. Watson, Pharmaceutical Chemist, Jarrow-on-Tyne.

z. morphia hydrochlor., about 1 lb. opium, and a few other drugs from reduced stock; will take one-fourth less than list price. 114/17 E.

Optical.

First-class binocular microscope, with coarse and fine adjustment, condenser and animalcule cage, having ¼-inch triplet object-glass of superior quality, dividing into quarter and half, and a 2-inch triplet, for low power, in brass boxes, in a handsome mahogany cabinet with lock and key, quite new, selling price, 10l. 10s.; offered for five guineas, a bargain. J. T. Slugg, 242 Stretford Road, Manchester.

Henry Laurance's spectacles, assorted, from 2s. 6d. to 10s. 6d.; amongst retail prices, 26l. 10s.; perfectly new. What offers? 158/2.

Apparatus.

Small paint-mill. 159/22.

Second-hand drug-mill, diameter of basin 17 inches, price 3l. Cubitt, Norwich.

Cocking's double-action pill machine, perfect, nearly new, cheap; also burnisher. 157/10.

Copper still, 20 gallons, complete, with head and tap, also worm and condenser, good condition. E. B. Kendall, York.

Pinder's rotary pill machine and press, good as new; four grain; price 7l. 10s.; a bargain. Apply, James Watson, Rose Corner, Norwich.

Double-action steam-pump, four-horse power, never been used, suitable for oil-refiner or mineral-water manufacturer; price 20l. 150/50.

Soda-water and lemonade machine, complete plant, patent bottles, van, steam-power, receipts, &c., second-hand. N. G. Wilcocks, Bath.

Several of Baker's patent combined sifting machines complete, with four sieves, quite new; price 11s. Apply, Messrs. Gravett & Martin, Chemists, East Grinstead.

Marsh's arsenic apparatus, complete; Liebig's condenser, on stand; bell for desiccator; glass percolator and receiver; flat glass dish, 7 in. by 4 in.; 2-pint and 1-pint glass retort; all cheap. Hardy, Chemist, Taunton, Ireland.

American ice-cream soda-water machine by Dows & Clark, with 18 syrup-taps; to a large confectioner or druggist in the South it would during the summer be most remunerative; it will be sold at almost a nominal value. Baildon & Son, Chemists, Edinburgh.

Hayward Tyler's No. 1 Bramah's continuous-process soda-water machine, with pump and condenser, gas-generator, copper gasometer, and oak-casing solution-pan, pipes, and attachments; bottling machine and other apparatus; at a bargain. Manager, 135 Queen's Road, Brighton.

Educational.

Chemicals sent for analysis to students, and reports on same corrected; terms low. 159/7.

Materia Medica.—A cabinet of 150 specimens, only 10s. 6d. Write for testimonials to Mr. Tully, Tunbridge Wells.

Southall's Materia Medica Cabinet. Almost new; cost 30s. What offers? S. Taylor, Queen Square, Wolverhampton.

Botany.—Herbarium, containing all the leading indigenous and official plants, 120 specimens, 10s. 6d. Send for testimonials to Mr. Tully, Tunbridge Wells.

Fifty questions asked of a successful student at last Minor, 2s.; 30 prescriptions (each and difficult) given to dispense at Minor during past session, 2s.; reagent labels for Minor students, showing formulae, equations, and other useful knowledge, 1s. 6d.; lot of cheap books for students; send stamp for list. Saunders, Tutor, 79 Gaisford Street, N.W.

Shop Fittings.

About 40 old blue Delft-ware shop-pots, burnt-in names. 157/28.

Shop bottles, fittings, specie-jars, drugs, patents, and other proprietary goods, mirrors, colours. List on application. 151/14.

Glass case, fig. 3 Maw's catalogue, cost 11l., condition perfect, good as new; best bid over 6l. accepted. W. K. Ferguson, Chemist, Leeds.

Two handsome specie jars, gilt covers; quantity ½ lb. and 1-lb. stoppered bottles, labelled, wide and narrow mouth. What offers? Beverley, Nottingham.

Handsome show-jar, perfect shape, labelled "Turkey Sponge," height to top of (metal) cover 33 inches, diameter 16 inches. Young, Chemist, Warrington.

The entire fixtures and utensils of six chemists' shops for disposal. Will be fixed at less than half the usual cost; some of these are suitable for a first-class business. Lloyd Rayner, 333 Kingsland Road, London.

Cheap.—The fittings of a well appointed pharmacy, in polished mahogany, including cases, counters, drawers, &c., carboys with polished stands, a full set of gold-labelled bottles, jars, and pots. Lancaster, 2 Osna-borough Road, N.W.

One cigar-case, similar to Maw's 83, tablet "Choice Cigars," 2 feet long, five compartments, 20s.; 12 6 lb. pink jars, dome top, 4s. 6d. each; 11 4-lb. light blue, Maw's fig. 1, 2s. each; 5 tooth instruments, lower molar left, 3s. 6d. each; 2 bicuspidates, 2 straight, with screw for stumps, 3s. 6d. each; 60 doz. ½ oz. cold-cream pots, burnt-in labels, 1s. 2d. per doz.; 6 earthenware slabs, 7, 9, and 10 inches square, 9d. each; 6 small glass cases, as Maw's fig. 81, 9 by 12, price 4s. each. The above is part of Mather's stock, new and perfect. Address, Pare, Bolton.

Fifteen mahogany-top counters, all sizes; 5 deal-top counters; 4 mahogany top counters, with glass-case fronts; 25 mahogany wall cases, from 2 to 20 feet long; 8 stained-mahogany wall cases; 35 nests gold-labelled shop-drawers, from 2 to 20 feet long; quantity upright counter-cases, with and without desks; quantity dispensing-case screens, from 3 to 10 feet long; quantity office or counter desks, with screens; quantity bent-glass counter-cases, from 18 inches to 10 feet long; quantity flat counter-cases; quantity shop bottles and jars, oil bottles, syrup bottles, specie jars, and carboys, shop doors and fronts, window and counter show-stands, soda-water stands and sponge-cases, toothbrush-cases, Maw's 72. Lloyd Rayner, 333 Kingsland Road, London.

Literature.

Pharmaceutical Journal, weekly, for *Lancet* or *New Remedies*. 154/37.

Babington's "Flora," last edition. Coles, 2 French Gate, Doncaster.

Pharmaceutical Journal, posted on Saturday. Illsley, Ripley, Derby.

Pharmaceutical Journal, 1880, posted same day as received, with back numbers; what offers? X. Y. Z., 91 Blackman Street, S.E. Four *Chemist and Druggist* Diaries, from 1876 to 1879; one a little written in; what offers? H. K., 212 Stretford Road, Manchester.

Pharmaceutical Journal, February, 1871, to December, 1879; perfectly clean; missing, September 1 and 7, 1872. *Chemist and Druggist*, January, 1873, to December, 1879. What offers? Allen Smith, Chemist, Sale.

The Chemist and Druggist, a complete set, from the beginning to the end of 1880; from 1839 to 1871, 13 years, in 12 volumes, bound in green cloth; unbound from 1872 to end of present year. Offers wanted. H. K., 212 Stretford Road, Manchester.

The Pharmaceutical Journal, bound, one volume, 1850 and 1851; 11 volumes, 1858 to 1868; unbound, from July, 1838, to December, 1869, and from July, 1870, to January, 1873, two parts short. Offers wanted. H. K., 212 Stretford Road, Manchester.

Chemist and Druggist, 1877, 1878, 1879, complete, 10s. 6d.; 1-gallon graduated glass percolator, 12s. 6d. John Lea, Folkestone.

Squire's "Pharmacopœia," 5s.; Attfield's "Chemistry," 5s.; Southall's "Materia Medica," with several additions, 10s.; Wills's "Pharmacy," 1s. 6d. Address, Alfred Smith, North Street, Winchcombe, near Cheltenham.

Pereira's "Materia Medica," three volumes; British Pharmacopœia, with additions; Lescher's "Elements of Pharmacy," fourth edition; Attfield's "Chemistry," second edition; Bentley's "Botany," second edition, &c. Write for particulars to Sneath, Chemist, Newark, Notts.

The *Chemist and Druggist* from 1869 to 1879, only two numbers missing; the *Pharmaceutical Journal* from Jan. 5, 1878, to May 1, 1880, a few numbers missing; Brooke's *Gazetteer*, 1851, published at 15s. Offer wanted? Address, Chemist, Chandos Road, Redland, Bristol.

Bentley's "Botany," new, 10s.; Pereira's "Materia Medica," 5s.; Fresenius' "Qualitative Analysis," 5s.; Muter's "Chemistry," 7s.; Bloxham's "Laboratory Teaching," 3s.; Tomes's "Dental Surgery," 7s.; Ringers's "Therapeutics," 7s.; Druitt's "Surgeon's Vade Mecum," 7s.; Books for Royal Coll. Surgeons' Prelim., 10s.; Fowne's "Chemistry," 2s. 6d.

Formulæ.

Formula to coat pills, as before advertised, 1s. Hoddinott, Boundary House, Barnet.

"Foaming Dentifrice," undetected from "Floriline"; "Grape Saline," resembles and substitutes Eno's; formula 2s. 6d. each. 150/31.

Infalible cure for corns, 2s. 6d. Send stamp for select list of veterinary, perfumery, &c., formulæ (collected in high-class establishments), 1s. 6d. each, 10s. a dozen. J. T. R. Evans, 7 Timbrell Street, Trowbridge, Wilts.

Nubian Blacking.—Recipes for preparation similar in appearance, smell, and effect to above; composition and ink for copying apparatus; sulphur lotion; printers' roller composition; hair cream (white and inseparable); German lark meat; wood stains, and others; lot, 7s. 6d. Wittstien, Lower Broughton, Manchester.

Indestructible marking-ink (*sine* silver), nsable with any pen, requires no heating, writing unobliterated by chemicals; brilliant polish for leather (resembles "Nubian" blacking), soluble essence of ginger (equal to Hay's), cherry tooth-paste (never ferments), elixir (or vinum) pepsinæ, toilet vinegar (equal to Rimmel's), with several others. Send stamp for list, all genuine and reliable, 5s. each (five for 1l.). "Analytical Chemist," Herbert Heblethwaite, Cumberland Market, N.W.

Fragrant foaming dentifrice (similar to Floriline); glycerine jelly (perfectly transparent); cherry tooth paste (never ferments); brilliantine (inseparable); lime-juice and glycerine (inseparable and perfectly white); splendid black ink (never corrodes steel-pens); marking ink (black or red); effervescing fruit saline (resembles Eno's); pill-coating (pearly white, no mucilage or mastic used); magic neuralgic drops (never-failing remedy); quinine and iron tonic (resembles Pepper's); excellent chilblain paint; cough mixture (clear red, effective, and agreeable); with many others; send stamp for list. The toilet articles are identical with those prepared by a renowned West-end perfumer; the others are equally good; all inexpensive to prepare; 5s. each (five for 1l.); inquiry letters must be prepaid, "Analyst," care of Mr. Warnes, 79 Gaisford Street, N.W.

Chemist going abroad has the following excellent formula:—American pick-me-up (as largely sold by an old city house) cough mixture (very efficacious) also great variety of pills, tooth-powders, perfumes, pomade, &c., all inexpensive to prepare, and commanding good price and sale. Price 2s. 6d. each, 10 for 1l. W. Walton, 3 Crescent Place, Burton Crescent, W.C.

Proprietary Articles.

Six Rooke's elixir (11s.), clean, at 6s. each. Fortune, Anstruther.

Three dozen Barrow Evans' hair restorer; what offers? Davidson, Dundee.

Job lot patent medicines, value 10l.; 4l. or offers. 159/9.

Barber's, Steiner's, and Gibson's vermin-killer. 159/22f.

Six dozen 1s. Maw's "Alexandra" feeding-bottles; 6 doz. 1s. export ditto; 1 doz. 1s. export screw-cap; what offers? 156/14.

Miscellaneous.

Large iron safe; nest of 32 drawers, large size. 159/22b.

6 cwt. blacklead, in packets; 7 cwt. cake "Lion" blue. 159/22c.

New electro teapot and cake-basket, presented by proprietor of Siegel's syrup. 159/25.

One hundred copper coins, old and foreign, best offer. E. Watson, 1A Moreton Street, Pimlico.

One-gallon copper spirit measure, 8s.; French movable atlas of the human body (new), neck and trunk, 6s. Highway, Walsall.

About one ton Gill & Tucker's blue starch in ½-cwt. boxes, 24s. per cwt. Mark Cooper, Church, Lancashire.

Quantity meat dog-hiscuits, equal to Spratt's, 13s. 3d. per cwt., 5 bags 3d. less. Elmitt, Horncastle.

Ladies' and gentlemen's urinals, very portable, never made at the price, sample 3s. 6d. W. Caunt, 5 Green Lane, Penge, S.E.

Wedgwood mortars, no pesticides, 1 No. 2. 1 No. 1, 7 No. 0, 7 No. 00, 11 No. 000. What offers? Slack, Stockport Road, Manchester.

Four pairs real Japanese vases, came from Japan, beautiful ware and antique shapes, price 1s. 9d. per pair, lot for 5s. H. Kemp, Horncastle.

Dispensing corks, about 20 gross 6 and 8 oz., very superior, nearly 1½ inch long, cost 3s., sell 1s. 9d., samples 1½d. free. Maitland, Stonehouse, Plymouth.

Handsome saline wrappers, crimson or blue, on white enamelled paper, 100 post free 60 stamps, sample 1½d. post free. Maitland, Stonehouse, Plymouth.

One suppository-mould, silver-plated, Maw's, 5s.; plaster-iron and 4 pairs tooth-force eps, molar, cuspids, stamps, new, maker Savigny, 12s. 114/17A.

Splendid inlaid musical-box, plays six tunes, nine bells, cost 10l., price 5l., good as new. "Pharmacist," 369 New North Road, London, N.

A first-class mahogany writing-desk, in good condition, price 26s.; also a morocco-leather travelling bag, well lined, price 16s. "Chemist," 20 Dean Street, Westminster, Bristol.

Bottles (Dirty).—Champagnes, Zoedoncs, Apollinaris, wines, ales, brandies, pickles, sauce, Eno's, Lamplough's, &c., for cash or exchange for new bottles. Glass, 66 Coleman Street, E.C.

Two specie-jars with stands, 16 by 16 by 5 inches, 3l.; quart copper still, with worm, 15s.; ½-gallon displacement apparatus, Y. G. Co., 15s.; Post-office Directory, 5s.; Pharmacopœia, 1867, 5s. Barlow, Blackheath, Dudley.

Quantity still left of large, handsome couch shells, sell well, price 8s. per dozen, sample shell nine stamps; two handsome well-finished genuine Zulu assegais, make a nice curiosity for shop, price 3s. each. H. Kemp, Horncastle.

Quantity cortex cinchona, mixed, good qualities, 3s. 6d. lb.; hops, 1s. 9d. lb., sample either six stamps; marking-ink stretchers, 1s. 9d. doz., sample three stamps; 23 1/4d. Cameroun ointment; 3 Bilin pastilles, what offers? Garman Brothers, 278 Roman Road, Bow, E.

Fly-papers, a few parcels, 4s. 6d. per 1000; corks, Daffy's, 100 gross excellent quality, 5d. per gross; 80 gross fine wine, 6d. per gross; 30 gross finest velvet taper spirits, 10d., cost 1s. 9d.; also very superior black enamel hide "Gladstone" bag, double action lock and usual fittings complete, unsoiled, price 26s, cost 42s.; also few vols beautifully-illustrated books, cheap. R. Halford, 301 New John Street, Birmingham.

Show-jar, equal to new, Mather's fig. 1, cost 3l.; mahogany stand for 6-gallon hottle; pill machine to make 24 5-grain, nearly new 14 8-oz. w.m. bottles; 15 8-oz. w.m.; 920-oz. w.m.; 29 20-oz. w.m.; 17 30-oz. w.m.; 2 30-oz. w.m.; 15 40-oz. w.m.; 17 40-oz. w.m. 7 49-oz blue syrups; 5 40-oz. glass-capped 23 3-lb. blue ung. jars; 10 12-oz. pill jars above little used and gold-labelled; cigar case, 3 divisions, cost 18s.; 3 nests of drawers, length 12 ft. 6, dovetailed, containing 126 drawers, plain-labelled, excellent condition, price 5l.; capital counter 2 parts, 13 feet long, mahogany grained with 20 large drawers, price 5l.; 39½ gallon Stettin colza oil, price 4l. 15s.; 6 gallon Brunswick black and can for 1l.; 16 doz Herbert & Godfrey's spectacles, cost 6l. 12s for 4l.; 1 3-cwt. platform weighing-machine cost 3l. 13s., for 2l. 8s. Offers, &c., request for above. Also on sale, stock of drug sundries, proprietary articles, &c., at considerably less than cost-price. A solicited. Heaton, Chemist, Little Hulton, near Bolton.

WANTED.

Acton's "Reproductive Organs." Cheap. 154/ For cash, cheap, Acton's "Reproductive Organs" 158/19.

Chemist and Druggist's Diary for 1880. S. Over Son & Co., 102 Lower Thames Street, E.C. Two, six, or eight gallon carboys. State low price to H. H. Taylor, Middlesbrough. A second-hand lamp, similar to Maw's fig. 8. 10. Price to Smith, Canton House, Worth. A good-sized counter show-case. Send particulars and lowest price. 159/8.

Samuel Moore's (late Houndsditch) brown cigarettes. 158/13.

Hayward's "Botanist's Note Book." C. 2 French Gate, Doncaster.

A large press, suitable for mushrooms. Particulars to Noles & Son, Great Yarmouth.

Chemist and Druggist for February, 1879. price given. Young, Chemist, Warrington.

Deal drawers for underneath counter. s/z, price, number. Edmunds, New Mon.

Any surplus stock of silk stockings, knee leggings, &c., also Squire's "Companion" Casely, Camden Town.

"British Pharmacopœia," Muter's "Chemist" latest editions. Lowest price to Far Spennymoor.

Chemist and Druggist wanted in exchange for *Pharmaceutical Journal*. Moore, Cary.

Patent medicines, proprietary articles, or goods, in exchange for Dutch (24s. per gross). D. Haigh, Fulstons, near Huddersfield.

Monthly Price Current.

The prices quoted in the following list are those actually obtained in Mining Lane for articles sold in bulk. Our Retail Subscribers must not expect to purchase at these market prices, but they may draw from them useful conclusions respecting the prices at which articles are offered by the Wholesale Firms.

CHEMICALS.		1880.	1879.
ACIDS—		s. d.	s. d.
Acetic	per lb.	0 2½ to 0 3½	0 2½ to 0 3½
pure		0 4 .. 0 7½	0 0 .. 0 0
glacial		0 10 .. 0 10½	0 0 .. 0 0
Benzoic Sublimate		7 3 .. 0 0	0 0 .. 0 0
Ex. Gum	per oz.	0 9 .. 0 0	0 0 .. 0 0
Citric		2 3 .. 0 0	1 10 .. 0 0
Gallic		4 3 .. 0 0	0 0 .. 0 0
Hydrochloric	per cwt.	5 0 .. 7 0	4 0 .. 7 0
Nitric	per lb.	0 4 .. 0 4½	0 4½ .. 0 0
Oxalic		0 4 .. 0 0	0 4 .. 0 4½
Sulphuric		0 0½ .. 0 1	0 0½ .. 0 1
Salicylic		8 0 .. 8 6	0 0 .. 0 0
Tannic		1 9 .. 2 10	0 0 .. 0 0
Tartaric crystal		1 8 .. 1 8½	1 4 .. 1 4½
powdered		1 8 .. 1 8½	1 4 .. 1 4½
ANTIMONY ore	per ton	0 0 .. 0 0	240 0 .. 300 0
crude	per cwt.	0 0 .. 0 0	36 0 .. 0 0
star		69 0 .. 70 0	0 0 .. 0 0
ARSENIC, lump		23 6 .. 0 0	25 0 .. 0 0
powder		10 9 .. 0 0	8 9 .. 0 0
BRIMSTONE, rough	per ton	110 0 .. 0 0	102 6 .. 105 0
roll	per cwt.	9 6 .. 10 0	9 6 .. 10 9
flour		10 6 .. 11 6	10 6 .. 12 9
GLYCERINE, German		43 0 .. 57 0	0 0 .. 0 0
refined		32 0 .. 34 6	0 0 .. 0 0
crude brown		1 2 .. 0 0	1 2 .. 0 0
IODINE, dry	per oz.	1 10 .. 0 0	1 10 .. 0 0
MAGNESIA, calcined	per lb.	1 0 .. 0 0	0 0 .. 0 0
Powder, Hwds.		5 0 .. 0 0	0 0 .. 0 0
MERCURY	per bottle	130 0 .. 0 0	122 6 .. 0 0
MINIUM, red	per cwt.	16 0 .. 0 0	15 9 .. 16 0
orange		29 0 .. 0 0	28 9 .. 0 0
PRECIPITATE, red	per lb.	3 2 .. 0 0	3 2 .. 0 0
white		3 1 .. 0 0	3 1 .. 0 0
PRUSSIAN BLUE		0 0 .. 0 0	0 0 .. 0 0
SANTONINE		23 0 .. 0 0	0 0 .. 0 0
SALICINE		14 6 .. 0 0	0 0 .. 0 0
THYMOL		26 0 .. 27 0	0 0 .. 0 0
SALTS—			
Alum	per ton	135 0 .. 140 0	122 6 .. 125 0
powder		155 0 .. 0 0	140 0 .. 0 0
Ammonia:			
Carbonate	per lb.	0 6½ .. 0 6½	0 6½ .. 0 6½
Hydrochlorate, crude, white	per ton	600 0 .. 800 0	600 0 .. 720 0
Sulphate	per ton	375 0 .. 380 0	350 0 .. 355 0
Argol, Cape	per cwt.	75 0 .. 90 0	75 0 .. 82 0
Red		70 0 .. 79 0	56 0 .. 70 0
Oporto, red		36 0 .. 0 0	28 0 .. 30 0
Sicily		0 0 .. 0 0	60 0 .. 65 0
Bleaching powd.		6 3 .. 6 6	5 9 .. 0 0
Borax, British refined		55 0 .. 57 6	35 0 .. 36 0
Calomel	per lb.	2 9 .. 0 0	2 9 .. 0 0
Chloral hydrate, Saame's		4 2 .. 4 4	0 0 .. 0 0
Liebreich's		5 10 .. 6 0	0 0 .. 0 0
Copper:			
Sulphate	per cwt.	22 6 .. 0 0	18 0 .. 0 0
Coppers, green	per ton	55 0 .. 60 0	50 0 .. 55 0
Corrosive Sublimate p. lb.		2 3 .. 0 0	2 2 .. 0 0
Cr. Tartar, French, p. cwt.		129 0 .. 130 0	103 0 .. 102 0
brown		110 0 .. 112 6	80 0 .. 82 6
Epsom Salts		4 3 .. 6 0	4 3 .. 6 0
Glauber Salts		3 0 .. 4 6	3 0 .. 4 6
Magnesia: Carbonate		42 6 .. 0 0	47 6 .. 0 0
Powder, Hwds.		74 0 .. 0 0	0 0 .. 0 0
Morphia Murias		11 0 .. 0 0	8 0 .. 0 0
Potash:			
Bichromate	per lb.	0 5½ .. 0 0	0 5 .. 0 0
Carbonate:			
Potasbes, Canada, 1st sort	per cwt.	23 6 .. 0 0	21 6 .. 0 0
Pearlasbes, Canada, 1st sort	per cwt.	32 6 .. 0 0	33 6 .. 0 0
Chlorate	per lb.	0 6 .. 0 0	0 6 .. 0 6½
Prussiate		0 11½ .. 0 0	0 11½ .. 0 11½
red		1 8 .. 1 10½	1 8 .. 1 10½
Tartrate (see Argol and Cream of Tartar)			
Potassium:			
Bromide		1 11 .. 2 0	1 8 .. 0 0
Chloride	per cwt.	0 0 .. 0 0	6 6 .. 0 0
Iodide	per lb.	17 6 .. 18 6	16 0 .. 16 6
Quinine:			
Sulphate, British, in bottles	per oz.	11 9 .. 12 0	11 6 .. 0 0
Sulphate, French		12 6 .. 0 0	11 6 .. 12 0
Sulphate, German		11 6 .. 0 0	0 0 .. 0 0
Sal Acetos	per lb.	0 6½ .. 0 7	0 6 .. 0 6½
Sal Ammoniac, Brit. cwt.		44 0 .. 45 0	44 0 .. 45 0

		1880.	1879.
		s. d.	s. d.
Saltpetre:			
Bengal, 6 per cent. or under	per cwt.	21 9 to 22 3	18 9 to 19 3
Bengal, over 6 per cent.	per cwt.	21 0 .. 21 6	17 9 .. 18 6
British, refined		23 6 .. 28 0	23 9 .. 25 0
Soda: Bicarbonate		10 9 .. 0 0	9 3 .. 0 0
Hwds.		45 0 .. 0 0	0 0 .. 0 0
Carbonate:			
Soda Ash	per deg.	0 1½ .. 0 0	0 1½ .. 0 0
Soda Crystals per ton		63 3 .. 0 0	62 6 .. 0 0
Caustic		10 0 .. 13 6	9 6 .. 10 0
Hyposulphite, per cwt.		0 0 .. 0 0	0 0 .. 0 0
Nitrate		14 0 .. 14 3	14 0 .. 14 3
Zinc Sulphate		18 0 .. 0 0	16 6 .. 0 0
SUGAR OF LEAD, Whitecwt.		40 0 .. 0 0	38 0 .. 0 0
Brown, cwt.		26 6 .. 0 0	26 6 .. 0 0
VERDIGRIS	per lb.	0 0 .. 0 0	1 1 .. 1 5
VERMILION, English		2 5 .. 0 0	2 2 .. 0 0
China		2 1 .. 2 2	2 3 .. 0 0
DRUGS.			
ALOES, Hepatic	per cwt.	60 0 .. 150 0	70 0 .. 160 0
Socotrine		95 0 .. 190 0	100 0 .. 200 0
Cape, good		43 0 .. 46 0	47 0 .. 51 6
Inferior		41 0 .. 42 6	40 0 .. 42 6
Barbadoes		50 0 .. 190 0	35 0 .. 160 0
AMBERGRIS, grey	oz.	3 0 .. 8 0	4 0 .. 68 0
BALSAM—			
Canada	per lb.	1 0 .. 0 0	0 8 .. 0 8½
Capivi		2 3 .. 3 0	1 4 .. 1 10
Peru		8 0 .. 10 6	4 0 .. 4 6
Tolu		2 7 .. 3 8	2 6 .. 0 0
BARKS—			
Canella alba	per cwt.	12 0 .. 18 0	20 0 .. 23 0
Cascarilla		18 0 .. 20 0	24 0 .. 35 0
CINCHONA—			
Calisaya, good and fine	per lb.	5 6 .. 8 6	4 6 .. 6 6
medium		3 9 .. 5 0	3 6 .. 5 0
N. Granad., fair to fine		5 0 .. 6 4	0 0 .. 0 0
ord. to mid.		2 0 .. 4 8	0 0 .. 0 0
Columbian, fine		3 8 .. 4 6	4 0 .. 6 4
ord. to fair		1 0 .. 2 0	1 6 .. 3 6
Carthagen., good		3 7 .. 4 10	2 8 .. 4 6
good medium		2 0 .. 3 3	2 2 .. 2 6
E. I. mossed		6 0 .. 12 7	0 0 .. 0 0
Ceylon, crown		5 0 .. 7 0	4 0 .. 7 0
red		1 6 .. 2 0	0 0 .. 0 0
Darjeeling, red fine		3 3 .. 3 6	3 0 .. 3 9
BUCHU LEAVES		0 2 .. 0 11	0 2½ .. 1 1
CAMPHOR, China	per cwt.	90 0 .. 92 6	75 0 .. 0 0
Japan		95 0 .. 100 0	76 0 .. 80 0
Refin. Eng. per lb.		1 4 .. 0 0	1 1 .. 0 0
CANTHARIDES		1 8 .. 4 3	1 6 .. 4 3
CHAMOMILE FLOWERS p. cwt.		41 0 .. 90 0	0 0 .. 0 0
CASTOREUM	per lb.	12 0 .. 26 0	0 0 .. 0 0
DRAGON'S BLOOD, lp. p. cwt.		90 0 .. 320 0	100 0 .. 260 0
FRUITS AND SEEDS (see also Seeds and Spices).			
Anise, China Star per cwt.		85 0 .. 90 0	82 6 .. 90 0
Spanish, &c.		31 0 .. 38 0	35 0 .. 42 0
Beans, Tonquin	per lb.	3 6 .. 4 9	4 6 .. 6 0
Cardamoms, Malabar good		6 6 .. 8 6	5 6 .. 7 3
inferior		3 0 .. 6 0	2 0 .. 5 0
Aleppy		2 9 .. 6 6	2 0 .. 6 6
Madras		1 6 .. 4 6	2 0 .. 5 0
Ceylon		2 6 .. 4 6	2 2 .. 4 1½
Cassia Fistula	per cwt.	21 0 .. 35 0	4 0 .. 57 0
Cocculus Indicus		7 6 .. 8 0	7 3 .. 8 6
Colocynth, apple	per lb.	1 3 .. 1 6	1 3 .. 1 10
Croton Seeds	per cwt.	50 0 .. 52 6	52 0 .. 27 0
Cubebs		13 0 .. 65 0	20 0 .. 0 0
Cummin		33 0 .. 33 0	27 0 .. 44 0
Fenugreek		9 0 .. 18 0	10 0 .. 0 0
Guinea Grains		33 0 .. 40 0	0 0 .. 0 0
Juniper Berries		0 0 .. 0 0	3 6 .. 6 0
Nux Vomica		7 0 .. 9 0	6 6 .. 9 0
Tamarinds, East India, West India		10 0 .. 16 0	8 0 .. 15 0
Vanilla, large	per lb.	15 0 .. 21 0	18 0 .. 21 0
inferior		4 0 .. 14 6	20 0 .. 40 0
GINGER, Preserved		0 5½ .. 0 7½	0 5 .. 0 6
HONEY, Chili	per cwt.	56 0 .. 63 0	30 0 .. 34 0
Jamaica		34 0 .. 50 0	35 0 .. 41 0
IPECACUANHA	per lb.	4 8 .. 5 2	3 11 .. 4 6
ISINGLASS, Brazil		2 6 .. 4 11	2 6 .. 5 1
Tongue sort		2 9 .. 5 0	3 2 .. 5 2
East India		1 0 .. 4 10	1 0 .. 4 6
West India		3 2 .. 4 10	3 2 .. 5 2
Russ, long staple		6 0 .. 10 6	6 0 .. 10 6
inferior		0 0 .. 0 0	0 0 .. 0 0
Simovia		2 0 .. 2 6	1 6 .. 2 6
JALAP, good		0 11 .. 1 2	1 0 .. 1 2
infer. & stems		0 9 .. 0 11	0 11 .. 0 11½
LEMON JUICE	per degree	0 0½ .. 0 1½	0 0½ .. 0 1½
LIME JUICE	per gall.	1 3 .. 1 8	1 3 .. 1 8
LIQUORICE, Spanish per cwt.		31 0 .. 36 0	0 0 .. 0 0
Liquorice Root		21 0 .. 30 0	0 0 .. 0 0
MANNA, flaky	per lb.	0 0 .. 0 0	3 6 .. 4 0
MUSK, Pod	per oz.	10 0 .. 60 0	20 0 .. 70 0
Grain		30 0 .. 70 0	0 0 .. 0 0
OILS (see also separate list)			
Almond, expressed per lb.		1 8 .. 0 0	1 9 .. 1 11
Castor, 1st pale		0 3½ .. 0 4½	0 4½ .. 0 5½
second		0 3½ .. 0 3½	0 3½ .. 0 4
Cod Liver	per gall.	3 6 .. 4 6	2 6 .. 4 4
Croton	per oz.	0 0 .. 0 0	0 2½ .. 0 6

1880.				1879.				1880.				1879.			
Essential Oils :				s.	d.	s.	d.	s.	d.	s.	d.	s.	d.	s.	d.
Almond	30	6	to 0 0	20	0	to 0 0	7	0	to 0 0	26	0	to 0 0	28	0	to 0 0
Anise-seed, star. "	7	9	.. 0 0	7	0	.. 0 0	0	0	.. 0 0	26	0	.. 0 0	27	0	.. 0 0
" German ..	12	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	28	0	.. 0 0	27	0	.. 0 0
Bergamot	8	0	.. 11 0	0	0	.. 0 0	0	0	.. 0 0	27	0	.. 0 0	25	0	.. 26 0
Cajepout	5	9	.. 0 0	3	6	.. 4 0	0	0	.. 0 0	20	0	.. 22 0	21	0	.. 23 0
Caraway	6	0	.. 8 0	0	0	.. 0 0	0	0	.. 0 0	27	0	.. 0 0	25	0	.. 26 0
Cassia	4	6	.. 4 9	2	10	.. 2 11	0	0	.. 0 0	20	0	.. 22 0	21	0	.. 23 0
Cinnamon	4	6	.. 0 0	4	0	.. 5 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Cinnamon-leaf ..	0	1 1/2	.. 0 3	0	1 1/2	.. 0 3 1/2	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Citronelle	0	3 1/2	.. 0 0	0	3	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Clove	7	6	.. 0 0	9	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Lavender Exot. per lb.	1	6	.. 8 0	1	8	.. 7 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Mitcham ..	105	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Lemon	6	0	.. 10 0	4	6	.. 11 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Lemongrass	0	3	.. 0 0	0	2 1/2	.. 0 3	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Neroli	7	0	.. 10 3	6	0	.. 9 6	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Nutmeg	0	3 1/2	.. 0 5	0	3	.. 0 4	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Orange	8	3	.. 8 6	5	0	.. 7 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Otto of Roses	15	0	.. 25 0	18	0	.. 30 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Patchouli	2	6	.. 3 10	1	6	.. 3 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Peppermint :															
American	12	6	.. 14 0	7	6	.. 9 6	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
(H. G. Hotchkiss) ..	14	9	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
English	16	0	.. 0 0	21	0	.. 23 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Japan	10	0	.. 13 0	6	0	.. 6 6	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Rosemary	1	6	.. 2 9	2	0	.. 2 6	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Sassafras	2	6	.. 0 0	2	0	.. 2 3	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Spearment	13	0	.. 0 0	8	0	.. 9 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Thyme	1	6	.. 4 2	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Mace, expressed	0	0	.. 0 0	0	5	.. 0 6	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
OPIMUM, Turkey	20	0	.. 22 0	17	0	.. 16 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
inferior	17	0	.. 18 0	10	0	.. 15 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
QUASSIA (bitterwood) per ton	110	0	.. 14 0	100	0	.. 130 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
RHUBARB, China, good and fine	2	10	.. 3 10	3	0	.. 4 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Mid. to ord.	0	8	.. 1 8	0	3	.. 2 3	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Dutch Trimmed ..	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
ROOTS—Calumba	87	6	.. 100 0	25	0	.. 50 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
China	23	0	.. 21 0	28	0	.. 30 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Chiretta	0	0	.. 0 0	0	2 1/2	.. 0 3 1/2	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Galangal	16	6	.. 20 0	21	6	.. 22 6	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Gentian	16	0	.. 20 0	18	0	.. 20 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Oris	16	0	.. 22 6	20	0	.. 45 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Pellitory	0	0	.. 0 0	70	0	.. 76 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Pink	0	8	.. 1 3	1	0	.. 1 4	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Rhatany	0	5	.. 0 6	0	2	.. 0 5	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Seneka	2	4	.. 2 6	1	9	.. 1 10	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Snake	1	5	.. 1 6	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
SAFFRON, Valencia ..	42	0	.. 45 0	20	0	.. 40 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
SALEP	120	0	.. 160 0	120	0	.. 110 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
SARSAPARILLA, Lima per lb.	0	5	.. 0 6	0	4	.. 0 5	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Guayaquil	1	0	.. 1 2	1	1	.. 1 4	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Honduras	1	2	.. 1 8	1	1	.. 1 4	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Jamaica	1	2	.. 1 11	1	6	.. 1 11	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
SASSAFRAS	3	0	.. 3 9	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
SCAMMONY, Virgin	30	0	.. 40 0	23	0	.. 25 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
second & ordinary ..	10	0	.. 25 0	8	0	.. 20 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
SENA, Bombay	0	1 1/2	.. 0 2	0	1 1/2	.. 0 2 1/2	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Tinnivelly	0	2 1/2	.. 0 9 1/2	0	2 1/2	.. 0 9	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Alexandria	0	4	.. 2 6	0	3 1/2	.. 1 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
SPERMACEETI, refined ..	1	3	.. 0 0	1	3	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
American	1	1 1/2	.. 0 0	1	1 1/2	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
SQUILLS	0	1	.. 0 2 1/2	0	3	.. 0 5	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
GUMS.															
AMMONIAC drop	1	10	.. 2 0	2	2	.. 2 10	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
ANIMI, fine washed ..	18	0	.. 20 0	14	0	.. 15 10	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
sorts	10	0	.. 15 10	9	10	.. 11 10	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
ARABIC, pale picked ..	2	10	.. 3 0	3	0	.. 3 10	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
sorts, md. to fin.	1	16	.. 2 9	1	18	.. 2 4	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
TURKEY, pick. gd. to fin.	6	10	.. 10 0	6	5	.. 9 10	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
second & inf.	2	10	.. 5 0	3	5	.. 6 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
sorts ..	2	6	.. 3 0	1	10	.. 2 5	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
ASSAFETIDA, cm. to fin.	0	12	.. 3 11	1	8	.. 2 12	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
BENJAMIN, 1st & 2nd ..	12	0	.. 29 0	21	0	.. 70 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
COPAL, Sierra Leone, per lb.	0	0	.. 0 0	0	7 1/2	.. 0 10	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
Manilla	35	0	.. 50 0	16	0	.. 24 6	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
DAMMAR, pale	90	0	.. 100 0	85	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
EUPHORBUM	0	0	.. 0 0	9	10	.. 15 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
GALBANUM	0	6	.. 1 2	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
GAMBOGE, pckd. pipe per cwt.	250	0	.. 320 0	2	0	.. 255 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
GUAIACUM	0	9	.. 2 6	1	0	.. 2 9	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
KINO	60	0	.. 1 0 0	60	0	.. 9 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0
KOWRIE, sorts	61	0	.. 70 0	50	0	.. 60 0	0	0	.. 0 0	0	0	.. 0 0	0	0	.. 0 0</



109/10. *Alpha*.—The specimen you send is a fine sample of quillaia bark. Your query reached us too late for an answer last month.

A CINGALESE QUACK.

Mr. W. E. Hudson, Chemist, of Colombo, Ceylon, sends us the following curiosity cut from the *Ceylon Observer* of May 3, last :—

NOTICE.

Dr. Shaik Mustan Hodge, who previously advertised in local papers about the opening of a dispensary for the cure of leprosy, brings the following for our information :—

Leprosy has five different formations :—(1) By the planet resembling aorpion: that is in Arabic called Za Zaul Gaib; it is said that there are eight heavenly beings named planets, who have power over the world, and accordingly, if a child would take his womb, meeting the above-named planet naturally, he gets leprosy on the 10th or 14th of his age; (2) by treading of a two-headed snake; (3) rat bite; (4) piles; (5) through venereal disease. This is according to the astronomy. First, should anybody eat his food or touch his spit will get leprosy.

Diet.—Fish, dried fish, and bringals, pumpkins, bitter gourd, agate leaves, head fruit, buffalo meat, pork, and liquor; these are all prohibited. Once ten days quarter measure of cow ghee to be used. Medicine must be taken for 80 days consecutively; then will show a great deal of improvement. Within another six months names of cured patients will be shown. Analysis and consumption : medicine ready.

And also one of the above patients, who was suffering very badly, unable rise from his bed, his legs were swollen like elephant's, with bloody sweat, hands and legs were full of sores, and plastered. But his arms could stretch, took more than 200 worms, thrown in a room next to the kitchen; and this patient said that he has been tried by a few principal doctors and several others of the island, and recommended his death; and further begged of me to give him my medicine, and promised to advertise his name. So, a patient of this state, after taking my medicine, within days walked from Wolfendahl Street to Kollupitiya, to my place, for medicine. I have given him medicine for 90 days for charity, and now all sores are dried and fever left; he takes his bed with others, he is postured. If he takes medicine for a few days more, he will be perfectly cured. And now as he is unwilling to advertise his name, I put a stop to his medicine, and hereinafter no medicine will be given to him without payment. This patient's name has already been advertised on the 11th. All the facts are well known from the commencement to one J. C. F. Miranda, of Colombo.

N.B.—Attendance will be charged, each visit 7.50 rupees. Dispensary is closed on every Friday.

Vellawatta, Galle Road, 20 feet beyond Toll-gate.

TINCTURA ARSENICALIS.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—Amongst some experiments I was making a few weeks since, the following formula for tincture arsenicalis suggested itself as a very great improvement upon the liquor arsenicalis of the B.P.

Arsenious acid	..	..	..	..	..	lxxx. gr.
Glycerine	..	..	..	..	..	3 iij.
Proof spirit ad	..	..	..	..	..	Qj.

dissolve the arsenic in the glycerine and add the proof spirit.

By this means you have a tincture of arsenicals of the same strength as the B.P. arsenicalis, which is perfectly stable, there is less escape of arsenic fumes in dissolving the arsenic, and in all respects you obtain a superior preparation.

Yours truly,

JOHN TIRRELL.

Canley, June 3.

112. X.Y.Z. asks can the widow of a man who died previous to 1868 be on the register as a chemist and druggist, deal in poisons, conducting business herself, no qualified man being on the premises? If said widow, previous to the passing of the Pharmacy Act (July 31, 1868) was actually carried on business as a chemist and druggist, and can get a certificate to that effect signed by a medical practitioner or magistrate, who can testify to the fact from his own knowledge, she is eligible for registration on payment of a fee. The Registrar, 17 Bloomsbury Square, W.C., will supply the necessary forms.

WEIGHTS AND MEASURES.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—I trust to your usual generosity and sense of fairness to get me a little space in your journal concerning the Weights and Measures Act.

I have often heard an expressive, though perhaps not the most refined word, "the more stire, the more the stink."

Now it seems to me that our all-wise foundation head, the Pharmaceutical Society, have been making a great stir in this matter, and left not a little for the poor chemists to get out of as best they can.

For example, I will mention the result of a visit of mine to an inspector

with some weights and measures to be tested and stamped. A 20-ounce measure he could not stamp, because it was marked fl. and the symbol f instead of fluid ounce; next, a 4-drachm weight was objected to because instead of being marked 3iv. it was 3ij. 3ij.; and I was told 36, 9, and 12 grain weights are perfectly useless, being illegal and not standard weights.

Now why, may I ask, is a 72-grain weight legal, yet the half, 36, not so? And lastly, all old weights, even if stamped, if not marked in accordance with the new regulations (for instance, grain weights must be marked in figures and not with dots on them), are useless, and lay you open to prosecution if found on your premises. Therefore, I advise chemists to throw all their old weights into their dusthole and buy new ones, which will be a matter of a few shillings to some and pounds to others, and which of course will be all profit, and console themselves at the same time, as the inspector tried to console me, that we have only our Society to thank for it.

I think the Act is a lot of buffoonery throughout, and to whomsoever we are indebted for it, whether the Pharmaceutical Society or the Board of Trade, from them we ought to be able justly to claim a thorough explanation of it. As the inspectors seem to know nothing about it, and when we are being constantly fined and put to inconvenience, I think the Society should do something to render an Act intelligible, which would be a dead letter so far as we are concerned if it were not for their stirring.

Yours, &c.,

BEPRO.

67/112. *The Patent Medicine Law*.—H. writes: Suppose I advertise a mixture as H.'s mixture, and state on counter-bills what it will cure, but do not keep it made up, but prepare it each time I sell it, and do not attach statement to it beyond a direction label, is it necessary to put the Government stamp on it?—The medicine would be liable to stamp-duty on the ground that a proprietary interest was claimed in it, and also because it was recommended as a cure for something. Whether kept in stock or prepared as required could not, we think, make any difference.

Our Students' Column.—Mr. R. Wright, of Burton Crescent, W.C., who took the first prize last month, writes as follows :—As I do not intend (at any rate at present) to compete again, I think it only right to bear testimony to the great value of the "Students' Corner" to anyone commencing the study of analytical chemistry. For it cannot be doubted that to be a competent analyst it is necessary not only to have a perfect understanding of every reaction taking place—which of course implies a thorough acquaintance with chemical principles—but also to know how far the knowledge possessed can be applied in special cases. Besides this, it is necessary to cultivate habits of order and method, and, more important still, of cleanliness. I think it will be universally acknowledged that all the above can only be developed by practice. Let a student have these, together with industry, perseverance, common sense, and, above all, experience, and there is hope for him. For myself, I know nothing, or next to nothing, of analysis until I commenced taking your powers, and hence I may say it has been the means of my laying the foundation of whatever success I may subsequently obtain in analytical work.

DENTAL REGISTRATION.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—I enclose you a circular letter I have received from the Honorary Secretary of the British Dental Association, pointing to the fact that when I was registered under the Dentists' Act I was only an assistant, and not on the Chemists and Druggists' Register. He says: "Under these circumstances your registration in the Dentists' Register is, in the opinion of counsel, a clear violation of the provisions of the Dentists' Act. The Representative Board, therefore, suggest that you should, in writing, request the Registrar to remove your name from the Dentists' Register. Should you not see fit to follow this recommendation within 14 days from the date of this letter the Board will feel bound to bring the case before the General Council, the possible result of which proceeding will be that your name will be erased from the register, and that you and the witness to your declaration are liable to be proceeded against under the appended section of the Dentists' Act, which was prominently printed upon your declaration paper."

Previous to July, 1878, I practised dentistry (such as is usual with a chemist's business), I being then an assistant. I filled in my application form, "As in practice before July, 1878, in conjunction with pharmacy." You will see they wish to make out that this was a misrepresentation. Will you kindly inform me if they can erase my name from the register, and also what steps should I take in the matter. I have no doubt hundreds are threatened in the same manner.

Yours,

June 5.

ASSISTANT.

[We have printed the above as a specimen of more than a dozen letters which we have received on this subject from various parts of the country. The Secretary of the British Dental Association has been sending round a lithographed circular letter to all persons registered as in practice before July, 1878, in conjunction with pharmacy, whose names do not appear on the register of chemists and druggists. He suggests that the recipient should, in writing, request the Registrar to remove his name from the Dentists' Register within 14 days. If not, the Association will bring

the case before the Medical Council, and possibly the name will then be erased, and "you and the witness to your declaration are liable to be proceeded against under" section 35 of the Dentists Act, which provides against registration procured by a false or fraudulent representation, and are "liable to be imprisoned for any term not exceeding 12 months."

No one familiar with the circumstances can read this circular without some indignation. There is not a word in it which is untrue, but it is likely, and of course intended, to produce an impression which it does not seem to us it is justifiable to produce. In the first place, the British Dental Association have no official standing in relation to the Dentists Act whatever. No doubt they can bring anybody's case before the General Council; so might any other association or individual. They have, it is true, obtained a counsel's opinion to the effect that a person who registered as having practised dentistry in conjunction with pharmacy, if he were not at the time a registered chemist and druggist, was technically ineligible for dental registration (see CHEMIST AND DRUGGIST, November, 1879). This opinion may or may not be sustained. It was certainly stupid of the framers of the Act, if they meant to limit the application of this clause to persons on the Pharmaceutical Register, not to say so in so many words. Acts of Parliament are expected to be precise in their language. As a matter of fact, these assistants who were registered were engaged in the practice of dentistry in conjunction with that of pharmacy. According to the simple words of the Act they had a right to register. No one has yet said they have not a right to register, except this counsel engaged by the British Dental Association. Suppose, however, that the Medical Council should be advised to take a similar view. Why, then, the name would be erased, and the man who paid his fee on the faith of a dozen plain and simple words in an Act of Parliament would have spent his money uselessly. He would be very much inclined to think that he had been trapped. But, then, in addition to losing his money, he is liable, say this Association, to be proceeded against for false and fraudulent representation. Of course, we are all liable to be proceeded against for any crime known to legal lore, but it is absurd to suppose that any sane judge would permit any man to be convicted on such a charge as is here suggested. Now, we particularly ask all those persons affected to follow their own judgment on this matter. We cannot say definitely what the Dental Association, the Medical Council, or the Courts of Law might decide, and our opinion, outside of the facts which we have always put prominently forward, is worthless; but we, if in like case, would maintain to the end the simple justice of our demand for registration on the words of the Act of Parliament. If the Medical Council should decide against this view, we would submit with a protest, for the results involved would not be worth the expense of a legal contest with such a body; and we should await with the utmost calmness the 12 months' imprisonment applicable to false or fraudulent representation, but in no sense to a case of this kind.—Ed. C. & D.]

112/72. A. S.—If there had been any book on the manufacture of artists' colours, it would almost certainly have been mentioned in Holman Hunt's lecture before the Society of Arts. You can obtain the number (price 6d.) of the Journal of the Society of Arts containing that lecture by applying at the Society's House, John Street, Adelphi. The dictionaries of chemistry, arts, &c., such as Muspratt's, Ure's, and Spous', give some information on the subject.

THE CARRIAGE OF GOODS.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—The Nottingham and Notts Chemists' Association have had for some time past the question of present rates charged upon carriage of goods under consideration, and a committee was appointed some two months since to take what steps they thought best with a view to the alleviation of this injustice.

If you, sir, or any of your readers can offer any suggestions upon this subject, I am sure the Nottingham Chemists' Association will deem it a favour, and will give such suggestions their earnest consideration.

We, as provincial chemists, feel this as a hardship, and especially does it affect us in the matter of returned empties.

For some time past, as you are well aware, the rates of carriage have been gradually increasing, until, I believe, they have now reached the highest rate allowed by Government to be charged. The rate now charged upon drugs in hampers from London (and everything, whether only heavy drugs or expensive ones in bottles, are all classed alike) is at the present time 2s. 6d. per cwt., and an extra charge of 6d. for all parcels between $\frac{1}{2}$ cwt. and 500 lbs. to Nottingham; and I believe the same charge is made to Bradford, a town situated nearly 100 miles farther North. This, if true, seems also an injustice. A chemist rarely requires parcels weighing less than 56 lbs. or more than 500 lbs. This extra charge falls upon us in almost every case.

With respect to returned empties, the injustice is even greater still. I presume there are many chemists who remember the time when empties were returned free; the charge from Nottingham to London is now 1s. 3d. per cwt.

Now, considering the small average breakages which occur per year in comparison with the very little risk the railway companies have to run, we think the above rates are much too high.

Any course of action or suggestion which you or any of your readers might suggest will have the utmost consideration from our committee.

I am, sir,

Yours obediently,

C. W. WARRINER,

Hon. Sec. Nottingham and Notts Chemists' Association.

135 Union Road, Nottingham, June 8.

[This subject is an important one, and if the grievance is felt in other parts of the country, we shall be glad to receive and publish facts and suggestions. Perhaps some united course of action can be decided upon. The Trade Association would serve its provincial subscribers well by taking up this matter.—Ed. C. & D.]

THE POLITICAL ATTITUDE OF THE TRADING CLASSES.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

"YET who that looks to History's damning leaf,
Where Whig and Tory, thief opposed to thief,
On either side in lofty shame are seen,
While Honour's form hangs crucified between,
Oh England! who such rival knaves can see,
But mourns the fate of Industry and 'Thee!'"

"The madness of the many for the gain of the few."

"So they march in processions, an' git up hooraws,
An' tramp thru the mud fer the good o' the cause,
An' think they're a kind o' fulfillin' the prophecies,
Wen they're on'y jest changlin' the holders of offices;
Ware A sot afore, B is comf'tably seated,
One humbug's victor'ous, an' t'other defeated.
Each honnoble rogue 'll git jes t wut he axes,
An' tradesmen—their reg'lar soft sodder an' taxes."

SIR,—The struggle between the two traditional gangs of political parties being now decided, I should feel greatly obliged to any enthusiast Liberal or Conservative if he could satisfy my desire to ascertain the gain or loss to the tradesman by the victory or defeat of either party.

As long as the trading and industrious classes remain such blind unreasonable animals as to stultify and disenfranchise themselves by sending to Parliament only the professional and financial classes to make laws for an rule over them, without any proper and effectual control, so long will they be fleeced and plundered and thrust into servitude and subjection.

On both sides of the House, no matter which party is in power, the seas are monopolised by closely-associated specimens of Croesus Moneybags, Shark Sharerigger, Colonel Jingo, and Blatant Buz'uz, Q.C., and tradesmen are actually led to believe that they are likely to be benefited by the interested legislation of these noble-minded gentlemen, when from one side of the House to the other not a single faithful advocate of the tradesman's interests is to be found.

Let us cease this supine indifference and look after our own interests. We are now being approached with a variety of requests and solicitations to spend our time and money upon this Liberal Society or that Conservative Association, "Member's subscription, one guinea," &c. Let us treat all such proposals with the ridicule they merit, and proceed to organise ourselves, consolidate our voting power in every constituency of the United Kingdom, and proclaim our entire independence of the so-called Conservative and Liberal parties. No one can deny that, in many closely-contested elections, the tradesmen's united vote would decide the day. Then we will not organise, and make our will a power, not only to be felt but respected. If we, as men of education and intelligence, are not equal to this simple act of self-defence, then let us remain what we have been, the tool and flunkies of those interests of knavery and slavery that assume to govern and direct us.

In the first place, let us have an efficiently and faithfully conducted paper organ devoted to the advancement of the social, political, legal, and commercial interests of "The Tradesman," not in any way to interfere with the objects of the existing denominational organs of the various sections, but to unite the whole body of retail tradesmen into a powerful political power, and to avoid the necessity of the tradesman being compelled to obtain his information and his political creed from, and to give support to, the press organs of the present (and past) political parties. Would pay? If faithfully conducted by private enterprise it must pay, but "Limited Liability" had any connection with it, the wealthy and knave classes, whose interests it would not promote, would wreck it as soon as they could "got at it."

In the meantime let our policy invariably be to harass those who oppress us, first, by continuing to vote against every government, no matter which party composed. This action on our part will assist to cause frequent elections, and will, therefore, relieve the honourable candidate of the present political formation of some of their ill-gotten gains. Secondly, let us by all means assist in the benevolent and meritorious labour of educating the industrious classes, not noisily and publicly, but in conversation and wherever we may have the opportunity, and by circulating handbills advocating our political views and satirising the tyrannical hypocritical classes.

Of course the interests now in power would rake up any quantity of rhetorical and sophistical dust to throw in our eyes, but we have sufficient reliable information to enable us to decide what shall be our course of action, and to allow no appeal from our decision. We have experienced the folly of placing the financial and professional classes always in unrestricted power: let us profit by that experience, and let them. Then the joke of knavery and tyranny may be destroyed and the tradesman emancipated from his present degraded position.

I am, sir, yours, &c.,
NEMESIS.

P.S.—For a characteristic specimen of legislation, observe the attempt to smuggle the recent Bill of Sale trick up the back-stairs. By, and in, whose interest? A limited liability co-operative company never has any sets in its books, and, with a secret bill of sale upon its stock and stores, would be exactly in the position so much desired by some of its promoters.

[The tradesmen did give legislators a taste of their influence in the late election in regard to the Civil Service Stores. In London especially Civil Servant" was about the most libellous epithet that could be thrown at a candidate. We should be delighted to see a more general notion of the trading classes.—Ed. C. & D.]

31/112. *Carbo.*—McDougall's Sheep-wash.—The patent for this composition was granted in 1860, so that it expired in 1874. McDougall claimed the exclusive right to the use of carbolic acid for destroying germs in sheep or preventing their attacks, but in 1864 he filed a disclaimer, relinquishing this part of the patent and claiming only the application of alkalies and tallow, or other saponifiable substances in combination with carbolic acid.

110/63. *Herb Bitters.*—J. M. P.—You certainly did not explain your requirements so clearly in your last letter. Perhaps a reader may be able to supply you with a formula for making "concentrated bitters for the immediate production of herb beer" put up in 64. bottles; a tablespoonful makes a gallon of beer, and chiretta is believed to be the basis of the preparation.

4/112. J. W. S.—We hope to be able to reply to your inquiries more fully next month. We have written to the Board of Inland Revenue, but have not yet received a reply.

16/111. *Inquirer.*—A course of Wills's postal system will keep you at systematic work, and get you in good training for the examinations, but you will most likely need a month or two in a school afterwards in order to be brought in good condition to the starting post.

CHEMISTS AND PATENT MEDICINES.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—The present mode of conducting business and the foolish and yielding competition in the matter of patents have now become serious questions, and will in a great measure undermine what has hitherto been a fitable and honourable profession. The questions, I grant, are most cult ones, but if the Pharmaceutical Society is of any use to the trade, and especially to the young men who are now being trained and educated for it, from whom the said society is drawing a large revenue, they will do nothing to remedy the present state of things, *i.e.*, to prevent grocers, confectioners, and others from dealing in medicines. What I would suggest, that the Pharmaceutical Society bring in during the present session a Bill to confine the sale of medicines under whatever name they bear to registered chemists and druggists, and this should apply to all medicines taken internally only—those for outward application should be allowed to be sold by anyone outside the trade; and in order to compensate the Exchequer for the loss in revenue, the licence for the sale of patent medicines should be raised to 40s. throughout the kingdom. This, I think, would be generally acceptable to the trade, and place the sale of all medicines in the hands of properly-qualified men.

It will soon be too late to deal with the matter, and it behoves the chemists of England to unite together and bring back within the present limit of the present law the control and sale of all medicines, and the Pharmaceutical Society of England cares for the future welfare of the trade they will take action in the matter and co-operate with all those who are outside their walls.

GEO. WESTON.

His suggestion at any rate has the recommendation of simplicity.—Ed. C. & D.]

A WORD TO THE GENTEEL.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—I have observed a deal of correspondence of late in your columns elsewhere about what the writers are pleased to term "professional etiquette," and wherein dark things have been hinted at concerning chemists who "turn their shops into fancy warehouses" and "fine stores." Now it seems to me that these philosophers have one and the same sight of, or, at any rate, ignored, the fact that chemists, as a rule—st, honest ones—go into business for the purpose of getting a living maintaining their wives and families when they have any. Supposing, having got out of my depth one day, I find myself being carried rapidly down by the current towards destruction, shall not I, think

you, lay hold of the tail of the first dog that comes swimming by to keep myself afloat, though all the fine people looking on dryshod from the shore laugh at me for doing it?

I am in business as a retail chemist. I find that trade enough in physic cannot be done to support me. What, then, shall I not be a fool, not to say a rogue, if I refrain to keep myself afloat by means of any dog's tail that comes in my way, provided it is an honest dog?

My advice to those superfine gentry who profess to think otherwise is that they do each and every one of them take a private house in a highly-respectable street, well away from any market, railway station, or vulgar concern of that sort with a smack of vulgar trade about it, and that they do each of them put up a wire blind with "Dispensary"—I beg pardon, "Pharmacy"—inscribed thereon in most respectable gilt letters, and a brass door-plate with "Mr. So-and-so, Pharmacien" thereon engraved in highly professional style; and, furthermore, that they do each and every one of them ensconce themselves behind the aforesaid wire blinds and wait for prescriptions (I do not know the Latin word for prescriptions, or else I would put it). I promise them they shall be quite welcome to keep the professional etiquette and respectability to themselves, as long as they leave us outsiders all the trade.

In my poor opinion the only professional etiquette worth a rush is that which would make you too proud to do a dirty or dishonourable action—make you feel above giving short weight or selling an inferior article—make you too gentlemanly to be unkind to a customer because he wears a ragged coat and has only a copper to spend—too magnanimous to be ill-tempered to him when he comes in the shape of a little child, and soils the plate-glass show-case with his dirty little paws as he peers at you over the counter, and, finally, too Christianlike to bully him when he calls you up at night just as you are dropping off into your first nap, and requests you to put up a pennyworth of ipecacuanha wine for his child who has the croup.

There is a godlike dignity about honest labour. I say godlike advisedly, for was not, and is not, the Creator the first and greatest worker, and are not His creatures, down to the tiniest animalcula, all workers in their way? but so-called professional dignity, except in the direction I have indicated, is only a delusion and a snare, an *ignis fatuus* that will lure a man on to the Slough of Despond, and land his family in a workhouse.

Yours obediently,

J. C. N.

June 7.

J. R.—Glycerole of Lead, or glycerium plumbi, is made like liquor plumbi subacetatis P.B., substituting glycerine for water, and heating it in an oil-bath. It should be filtered while quite hot.

CARTES DE VISITE.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—Having lately been simply done by a photo sent by an applicant for our situation, we think it only due to our *compères* to warn them against a similar transaction. The case is this. After several letters passing between the applicant and ourselves the agreement was concluded, and in due time a young man presented himself as much like the photo sent as chalk is like cheese; indeed, we could not believe our eyes, and the result proved how we had been taken in, his services being found so valuable that after two days he was paid a month's salary and told to go.

It afterwards came to our hearing that the photo sent, as stated by the party, was taken 18 months since, and represented a young man standing between 5 feet 6 inches and 5 feet 9 inches, the alive individual being under 5 feet. We might add that when the photo was sent on approval it was requested back per return.

Yours truly,

"VICTIMS."

[We are puzzled to understand how the carte de visite represented the man's height to such a nicety.—Ed. C. & D.]

11/151. *Assistant.*—Your sauce containing apples, which continues fermenting even after being well boiled, would probably be made to keep by the addition of 10 grains salicylic or 4 grains of benzoic acid to each pint. It is not certain, however, that this will stop the fermentation which has commenced, though it would almost certainly have prevented its appearance.

WEIGHTS AND MEASURES ACT, 1878.

TO THE EDITOR OF "THE CHEMIST AND DRUGGIST."

SIR,—I shall be greatly obliged if you will allow me space to impress on members of the trade, through the medium of your pages, the advice you have on so many seasonable opportunities given them as to the desirability of their obtaining, as far as possible, weights and measures conforming to the requirements of this Act of Parliament.

Stamped apothecaries' weights and measures legalised for use throughout the United Kingdom may now be procured through the usual channels for the supply of weights and measures used by chemists, and I cannot too strongly urge all members of the trade to at once provide themselves with those stamped weights and measures, as by so doing they adopt a cheap, and at the same time the most complete, safeguard against annoyance and expense to which they otherwise would be liable in the event of a prosecution being brought against them, for the possession of an unstamped weight

or measure renders the owner liable to a penalty of 5*l*., although the weight or measure may be otherwise accurate.

An erroneous impression appears to be gaining ground that weights and measures stamped in one district will not be acknowledged by the authorities residing in other districts. The provisions of the statute are very clear on this point, the 45th section being as follows:—"A weight or measure duly stamped by an inspector under this Act shall be a legal weight or measure throughout the United Kingdom, unless found to be false or unjust, and shall not be liable to be retamped because used in any place other than that in which it was originally stamped."

The Board of Trade was empowered by the Act to adopt standards for apothecaries' weights and measures, such standards to be approved by Her Majesty in Council. The standards for these weights and measures were issued to certain Metropolitan districts on August 14, 1879. On May 19 last several London chemists were summoned to appear at the Southwark Police Court for having in their possession inaccurate apothecaries' weights, and nominal fines were in each case inflicted. The inspector who prosecuted acknowledged in course of cross-examination that no notice had been given to chemists residing in his district that he had been supplied with standards for apothecaries' weights.

Inspectors appointed under the statute, residing in country districts, will, if not already supplied with these standards, in all probability receive them from the Board of Trade at an early date, when wholesale prosecutions may result if some steps are not taken by chemists themselves either to obtain new weights and measures duly stamped or to ascertain when the inspector for their district obtains standards, and forthwith take their old weights and measures to him for verification.

It cannot be too widely known that the Board of Trade has no power to issue instructions to local authorities as to the carrying out of this Act, the appointment of inspector and the duty of testing and stamping weights and measures resting with justices and town councils. It would be only courteous treatment to members of the trade for inspectors to give them notice when they receive their standards, and to allow some little time in which apothecaries' weights and measures may be verified before enforcing the penal clauses of the statute.

The chief inspector for the Birmingham district has promised, in response to a representation from the President of this Association, to give such notice to all chemists residing in the district, and to allow two or three months in which their weights and measures may be verified. It is very desirable—and such a course would probably obviate a considerable amount of vexation and expense to the trade—that one or two leading chemists in each district should call upon the inspector appointed for the district and request him to give a similar undertaking, and, failing a satisfactory reply, to then proceed to the local authorities, who would doubtless take care that no injustice should be done by precipitate action on the part of the inspector.

W. F. HAYDON,
Secretary to the Chemists and Druggists'
Trade Association of Great Britain.

Offices of the Association,
23 Burlington Chambers, New Street,
Birmingham, June 9.

39/112. **Apprenticeship.**—X. L. proposes a curious question: "A man takes an apprentice in the usual way, and before the expiration of the term of apprenticeship, sells his business and removes to another part of the country. Is the apprentice bound by law to follow his master, if so desired?" We cannot discover any authoritative reply to this question. On the one hand it may be said that the apprentice has been bound to a certain person, regardless of the place where such person may remove to. On the other hand it is quite possible that the place of business of the master may have greatly influenced an apprentice or his guardians, and removal to another locality may be very objectionable. Perhaps some reader is able to give us an illustrative case decisive of the question.

111/41. **Indiarubber Stamps.**—J. R. Y. would be glad to know what the material of these stamps consists of, if rubber alone is used, and how manipulated; if a composition, what it is. This, of course, is the manufacturer's secret, but some of our readers may be able to throw light on it. We have never heard that fumes of burning sulphur were used for preventing infusions turning bad. Bisulphite of lime is, or has been, largely used by brewers to keep beer from turning sour, and is now to a large extent replaced by salicylic acid. The best and almost the only unobjectionable way to keep infusions in, while still hot, to fill small bottles to the brim, and tie each one over with a piece of bladder or gut skin. When the liquid is quite cold a slight vacuum will be produced, and the bladder will be concave. If it remains flat the bladder has not been made air-tight.

113/30. **Nil Desperandum** would be glad of a formula for indiarubber linen ink.

5/158. **Scotus.**—**Unquentum Althææ** was official in the London Pharmacopœia, 1746. Its formula was:—

Oil with mucilage	2 lbs.
Yellow wax	1 lb.
Resin	4 oz.
Venice turpentine	1/2 oz.

Oleum cum Mucilaginibus, in the same Pharmacopœia, was thus made:—

Fresh marshmallow root	1/2 lb.
Linseed	3 oz.
Fenugreek seed	3 oz.
Water	2 lbs.
Olive oil	4 lbs.

Boil the bruised root and seeds in the water for half-an-hour, add the oil, and boil till the water is dissipated, strain and press.

We do not know of a formula for "*Syr. chlorid. calc.*"; perhaps some of our readers can supply one.

CRICKET MATCHES.

BAISS BROTHERS v. WRIGHT, LAYMAN & UMNEY.

LAST year we reported a cricket match between the sportsmen engaged in the houses of Baiss Brothers and Maw, Son & Thompson. We are glad to hear that these inter-chemical contests have been renewed this year, and hope we may receive reports of other matches both from London and the country.

The first was played at the Grayhound Grounds, Dulwich, on Saturday, May 29, the houses of Baiss Brothers and Wright, Layman & Umney being the competitors. The former won the toss, and sent their opponents to the wickets. The bowling of Mr. Welch and the general fielding of Messrs. Baiss's team kept the scoring down, and Messrs. Wright's effort only reached 58. Their eagerness to make runs cost them several wickets. Messrs. Baiss's team, with one player short, made up 88, and the match was decided by the single innings. Mr. D. Womersley contributed more than half the runs made from the bat. All the wickets were bowled, Mr. Attwood taking 6 and Mr. Whitehead 3. The fielding of Messrs. Wright's team was capable of improvement. The players and others connected with the firms took supper together, and afterwards passed an hour or two in pleasant company with Mr. C. F. Wright in the chair. Appended is the score:—

Wright, Layman & Umney.		Baiss Brothers.	
C. F. Wright, b Welch	8	W. Standing, b Attwood	14
E. Whitehead, b Welch	10	J. H. Peckover, b Attwood	3
H. C. Wright, 1 b w, b Welch	7	D. Womersley, b Whitehead	39
J. Attwood, run out	1	N. Womersley, b Attwood	2
— Renant, run out	0	F. Nash, b Attwood	4
— Pledger, b Welch	17	S. C. Welch, b Whitehead	0
S. F. Wright, run out	2	A. Baiss, b Attwood	0
— Spiers, run out	2	S. S. Baiss, b Whitehead	4
J. Smith, b Welch	1	H. Standing, not out	3
— Brodrick, c Womersley, b Welch	0	W. E. Peckover, b Attwood	0
— Barnard, not out	0	J. Watson, absent	0
Byes 6, 1 byes '1, w 2, n b 1	10	Byes 18, 1 b 1	19
	58		88

BAISS BROS. v. BURGOWNE, BURBIDGES, CYRIAX & FARRIER.

THE victorious firm were soon afterwards challenged by Burgoyne, Burbidges, Cyriax & Farrier. This contest came off on Saturday last, the 12th inst., on the Teddington Cricket Ground. On this occasion the conquering colour were lowered after a close match. Both sides made exactly the same number of runs from the bat, but the Coleman Streeters made 6 more than their opponents in byes. Supper was taken at the Clarence Hotel, Teddington, Mr. Arnold Baiss presiding.


Baiss Brothers.		Burgoyne, Burbidges, Cyriax & Farriers.	
W. Standing, c Thomas, b Bew 22		W. Howell, c D. Womersley, b Peckover	
N. Womersley, b Bew	5	W. Bain, run out	
D. Womersley, b Bew	15	W. Helps, b Welch	
J. H. Peckover, b Helps	10	G. Bew, st W. Standing, b D. Womersley	
S. E. Welch, c Bagallay, b Helps 6		W. Thomas, st W. Standing, b Welch	
F. Nash, 1 b w, b Helps	4	J. H. D. Wickham, b Welch	
S. S. Baiss, st Bew, b Thomas	9	A. Bagallay, b Welch	
H. Standing, b Helps	3	D. L. Jones, b Welch	
A. Baiss, st Bew, b Howell	4	R. E. Taylor, b Peckover	
J. Watkins, run out	0	P. H. Goddard, not out	
J. Watson, not out	0	b 4, 1 b 3, w 1	
b 1, w 1	2		
	80		

ZINCI OXYD. PUR.

(HARRIS'S),

GUARANTEED TO ANSWER ALL THE B.P. TESTS.
IN 1lb., 2lb., 4lb., 7lb., 14lb. and 28lb. BOXES, BOXES FREE.

SPECIAL QUOTATIONS TO LARGE BUYERS.

 PLEASE NOTE—EVERY PACKAGE HAS OUR LABEL AND SEAL UPON IT.

KEPT IN STOCK BY THE FOLLOWING WHOLESALE DRUGGISTS:—

Messrs. Evans, Lescher & Evans, London.
" Tidman & Son "Messrs. Evans, Sons & Co., Liverpool.
" Boileau & Boyd, Dublin.Messrs. Duncan, Flockhart & Co., Edinburgh.
" Woolley, Sons & Co., Manchester.

LIST OF OUR SPECIALITIES ON APPLICATION.

PHILIP HARRIS & CO.,**MANUFACTURING WHOLESALE & EXPORT CHEMISTS, BIRMINGHAM.****RICHARD TWEMLOW, CHEMIST,**

SPECIALITY, PROPRIETARY, MEDICATED LOZENGE, AND CHLORODYNE MANUFACTURER,

91 UPPER BROOK STREET, MANCHESTER.

begs most respectfully to inform the Trade that, with the aid of recent additions and improvements in his Manufactory and Laboratory for the carrying
 of the Manufacture of Medicated Lozenge, &c., and Chlorodyne, he is now in a position to execute orders as promptly as is possible, consistent as the nature of the various
 orders will allow. The P.B., T.H., proprietary, speciality, and any other Lozenges that might be wanted, I guarantee to be most faithfully prepared under my personal
 supervision, and beg to introduce to your notice the following specialities:—

Bouquet Lozenges, No. 1 size, about 250 to the oz.	3/6 per lb. net.	Bronchial Cough Lozenges (similar to Brown's Troches) ...	2/6 per lb. net.
" " No. 2 " " 180 "	3/0 "	Chlorodyne " (white and brown)	2/3 "
" " No. 3 " " 100 "	2/6 "	Children's Cough Lozenges (guaranteed to contain no Opiate, and yet are a most effectual sweetmeat)	1/6 "

These are truly a Bouquet Lozenge, and acknowledged to be the best in the Market.
 Pink Worm Tablets, a sweetmeat (in 1/2 gross Tins), 7/- gross net. The most effectual Worm Medicine of its kind ever prepared.

TWEMLOW'S CHLORODYNE.—NOTE!

Proportions of active ingredients—Morphine Mur. gr. iv. per f. oz., Acid Hydrocyan. (Scheele's) m. viij. per f. oz.
 begs most respectfully to draw your attention to my manufacture of Chlorodyne, proportions of active ingredients, as above, special qualifications as follows, viz.:—Its non-
 separating qualities, its miscible properties, its containing none but "Ol. Ment. Pip. Ang." Mitcham; then note its price compared with its quality and strength;
 guaranteed to contain ingredients quite equal, if not superior, to any other make of Chlorodyne extant, as attested by Surgeons and Chemists over the whole of Great
 Britain; its superiority over other Chlorodynes is alone the cause of its being in such great demand. My price is—

7/- lb. net, in 1-lb. Bottles, bottles free. 6/3 lb. net, in 5 or 6 lb. Winchester, bottles free. 6/6 lb. net, in 9-lb. Winchester, bottles free.

Wholesale Manufacturer of Chlorodyne for Wholesale and Retail Houses, in large or small quantities, to their own recipes, guaranteed to be faithfully
 prepared, at remarkably low rates. Special quotations for large quantities of Chlorodyne. It can be altered or made to suit all tastes.
 My Lozenges and Proprietarys may be obtained through any Wholesale House, and see that on every bottle and package there is a label containing
 name and address. Carriage paid to any Wholesale House in London or Liverpool upon any quantity, or if worth sent direct to any address in England, carriage paid.

SEND FOR SAMPLES AND PRICE LISTS.

**PULVERMACH'S
PATENT GALVANIC CHAIN-BANDS, BELTS, AND BATTERIES**

(RECENTLY IMPROVED)

Approved by the Academy of Medicine of Paris, and other Medical Authorities in England and Abroad.

VITAL ENERGY, it is well known, depends upon the normal functions
 of the nervo-electric fluid governing the whole economy; any de-
 cency thereof in the system manifests itself, according to the locality, by
 variety of troublesome ailments, such as

Indigestion	Asthma	Local Debility
General Complaints	Bronchitis	General Debility
Neuralgia	Paralysis	Female Complaints
Ataxia	Epilepsy	Mental and
Stiffness	Rheumatism	Physical Weakness
Writer's Cramp	Gout	Functional Disorders
Loss of Voice	Constipation	&c., &c.

This is no conjecture, but an established scientific fact, and it must be
 admitted that PULVERMACH'S GALVANIC CHAIN-BANDS, by
 applying this electrical deficiency, constitutes Nature's most congenial
 remedy in the ailments referred to, embodying a host of remedies in one

Thirty years' successful experience has proved the marvellous remedial
 powers of these appliances, even in cases defying ordinary treatment.

PRICE**GALVANO-PILINE CHAIN-BANDS.**

NARROW CHAIN-BANDS for Sciatica, Rheumatic, Neuralgic, and
 Gouty Pains, Chronic Rheumatism, Local Paralysis, and Cramp in the
 Extremities, according to Electric Power.

BROAD CHAIN-BANDS or BELTS for Lumbago, Indigestion, Liver,
 Chest, and Nervous Complaints, &c., wearables as a Belt.

BROAD CHAIN-BANDS for Nervous Deafness, Head, Tooth, and
 Face Aches, and Noises in the Head 22s., 30s., 40s., and 50s.

BROAD CHAINS for Loss of Voice and other Affections of the Throat,
 Asthma, and Spinal Complaints 10s. 6d., 18s., 22s., and 40s.

BROAD CHAIN-BANDS for Writers' Cramp, Trembling, Nervous-
 ness, &c. 22s. and 40s.

securing a Warm and Comfortable Application, free from possible counter-irritation, any of the above Band can be Felted, if required, at an extra
 cost of from 1s. upwards.

PAMPHLET POST FREE ON APPLICATION.

J. L. PULVERMACH, 194 Regent St., London, W.

A most Liberal Reduction allowed to the Medical Profession, Chemists and Druggists, and Hospitals.

THE CONTINUOUS VOLTA-ELECTRIC CURRENTS, rendered most
 conveniently self-appliable by recent improvements of these Chain-
 Bands, although applied externally, penetrate to the innermost organs, pro-
 moting digestion, circulation, and nutrition, and perform their recuperative
 and restorative work in a silent, natural way, devoid of the costliness, un-
 certainty and inconvenience of ordinary treatment, or of any unpleasant
 sensation or shocks, counter-irritation, &c.

Even a Five Shilling Band of the minimum electric power evinces its
 genuineness by deflecting a telegraphic needle at many miles' distance,
 whilst those of superior price and power produce all the physical, chemical,
 and physiological phenomena possessing the famous curative powers of the
 voltaic battery, enhanced by their great portability.

Mr. PULVERMACH refrains from advancing statements of his own
 in favour of his Medico Galvanic Appliances, but confines himself mainly
 to quotations from the opinions of competent medical and scientific
 authorities, including Sir C. Locock, Bart., M.D., F.R.C.S.; Sir HENRY
 HOLLAND, Bart., M.D., F.R.C.S., and F.R.S.; Sir J. R. MARTIN, Bart.,
 C.B., F.R.C.S., F.S.A., and F.R.S.; Sir W. FERGUSSON, Bart., M.D., F.R.S.,
 F.R.C.S., &c., reproduced in Pamphlet, post free.

LIST.

F. COMBINED BANDS for General Debility, Central Paralysis, Epilepsy,
 and Functional Disorders 40s., 50s., and 60s.

COMPLETE SET, WITH BELT AND VOLTA-ELECTRIC BATTERY.
 £5, £8, and £10 10s.

CHAIN BATTERIES.

G. CHAIN BATTERIES for Extreme Nervous Debility, Paralysis, and
 for Restoring Exhausted Vital Energy (to be used in conjunction with
 specially combined Bands) £3 10s. to 5 guineas.

H. INTENSITY BATTERIES for Treatment by Electric Baths in the
 Patient's own Bedroom in various cases, for Paralysis, Want of Power,
 &c., and for eliminating poisonous substances from the system (lead
 and mercury), 120 elements £6 6s.

EAU DE COLOGNE

OF THE MOST ANCIENT DISTILLER,

JOHANN MARIA FARINA,

Opposite the Julichs Place, COLOGNE.

ESTABLISHED A.D. 1709.

PRIZE MEDALS:—LONDON, 1851 AND 1862; OPORTO, 1865; PARIS, 1867.

By appointment, Sole Purveyor to Her Most Gracious Majesty Victoria, Queen of Great Britain & Ireland; Their Royal Highnesses the Prince and Princess of Wales; William, King of Prussia;



Albert II., King of Saxony; Alexander II., Emperor of Russia; Francis Joseph, Emperor of Austria; Lewis, King of Portugal; H.R.H. Frederick William, Crown Prince of Prussia.

In consequence of increasing inquiries from the Colonies for my Eau de Cologne, the only genuine, I beg to submit my Price Current.

At the same time I beg to call special attention to the following facsimile of my Trade Mark, for the protection of which I have instituted thirteen suits in the High Court of Chancery, all of which have been decided in my favour.



All similar Labels being more or less imitations of the same, I shall proceed as before against all person selling or exposing for sale any such imitations.

I only prepare one quality of Eau de Cologne. This quality never varies in the slightest degree, and there has not been the smallest change in the manufacture since the year 1709, when it was invented by my ancestor.

Orders equal to at least 12 dozen short bottles will be promptly executed at 12s. 6d. per dozen, against my bill drawn at three months from the date of invoice, delivered free on board the export ship, at Rotterdam, Antwerp, Harburg, or Bremen, no charge being made for the case and packing, but insurance charged extra $7\frac{1}{2}$ per cent. discount is allowed for orders equal to at least 100 dozen, but on no smaller quantities.

I may add that, as I do not draw on the Colonies, all Orders must be accompanied by a credit on some London House, or permission to draw on same at three months.

The Goods can also be shipped in transit through London at a very small additional expense, full particulars of which may be obtained of my Sole Agents for Great Britain and Ireland:—

MESSRS. J. & R. McCracken,

No. 38 Queen Street, Cannon Street, London, E.C.

The following are the sizes of my bottles:—

No. 1. Long Green Flasks	12 bottles	} to one dozen.
" 2. Short White Bottles	as per	...	...	...	12 "
" 3. Double ditto	figure	...	...	...	6 "
" 4. Wickered Bottles (small)	plate	...	...	...	8 "
" 5. ditto (medium)	...	...	...	...	4 "
" 6. ditto (large)	2 "	

JOHANN MARIA FARINA,

Opposite the Jülich's Place.

TRADE PRICE

WEBSTER'S MANILLA CABINET PAPER.

The true specific for Piles.



This paper is manufactured from Manilla grass and is impregnated with the following medicaments, viz.:—Carbolic Acid, Wormwood, and Bromo-Chloralum, in such proportions as to render its use at once healing and preventive.

The formula is the property of the eminent Dr. Webster, who testifies that "during a lengthened experience" he has "never known it to prove inoperative."

SOLD IN CARTONS, CONTAINING 500 SHEETS, AT

2/- each.

SOLE PROPRIETORS AND MANUFACTURERS—

LYNCH & CO.,

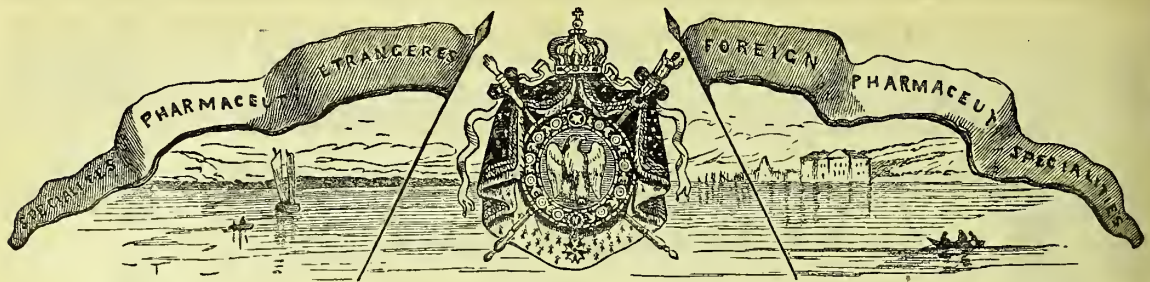
171a & 171b, ALDERSGATE STREET,
LONDON, E.C.

TO BE HAD OF ALL RESPECTABLE CHEMISTS.

11s. 6d. per doz., less usual Discount.

SPECIAL PRICES

FOR QUANTITIES.



FOREIGN SPECIALITIES AND MEDICINES.

ROBERTS & CO.,

FOREIGN AND ENGLISH CHEMISTS, WHOLESALE IMPORT AND EXPORT AGENTS FOR
FOREIGN MEDICINES AND PATENTS,

76 NEW BOND STREET, LONDON.

Messrs. Roberts & Co. beg to inform the Trade that they are Agents for all the principal French and Foreign Specialities and Medicines, a large supply of which they have always on hand, and can supply on very favourable terms. They are in daily communication with their Paris House, and can offer exceptional facilities for procuring New Medicines, &c., &c., with very little delay.

The following is a list of a few that they name *au hazard*, and that have a large sale:—

Retail	Per doz.	Retail	Per doz.	Retail	Per doz.	Retail	Per doz.
6/0..Alcool de Menthe Riebles	42/	4/6..Capsules Raquin	30/	2/9..Grimault's Syrups	22/	6/0..Rabuteau's Elixir Ferrug.	48/
2/9.. Ditto ditto	21/	4/6.. " Mathey Caylus	22/	2/3.. Guyot's Goudron	17/	3/6.. " Sirop	27/
3/6..Aubergier's Syrup	27/	4/6..Chassaing's Wine	36/	11/..Laville's Gout Tincture	84/	4/0..Racahout	33/
1/9.. " Pâte	13/	2/9.. " Pills	25/	11/.. " Pills	84/	5/0..Reynal's Bougies	42/
6/6..Bay Rum	54/	4/6..Clin's Bromide Campb. Caps	45/	2/3..Papier Fayard	13/	3/6..Ricord's Injection	24/
3/6.. Ditto	27/	4/6.. " Dragées	45/	1/11 Ditto	6/6	4/6.. " Capsules	34/
2/0..Belloc's Charcoal	16/	2/9..Dusart's Syrups	27/	4/6..Papier Fruneau	27/	8/0.. " Syrup	72/ ; 42/ ; 25/
1/9.. " Lozenges	13/	4/6.. " Wines	36/	2/3.. Ditto	15/	2/0..Star Paper	15/
4/6..Blancard's Pills	30/	6/0..Eau Botot	42/	1/9..Pâté Aubergier	13/	2/9..Tamar Indien	21/
2/9.. Ditto	18/	3/0.. Ditto	26/	1/9.. " de Georgé	13/	2/9..Vallet's Pills	24/
4/6..Brou's Injection	24/	2/3..Espic's Cigarettes	15/	1/11 " Ditto	8/6	1/9.. Ditto	13/
4/6..Bugeaud's Wine	36/	2/9..Flon's Syrup	23/	1/9.. " de Berthé	15/	4/6..Veloutine (White and Rose)	39/
4/6..Bully's Vinegar	33/	2/6..Gayetty's Paper	18/	1/9.. " de Nafé	13/	3/6.. Ditto ditto	30/
2/6.. Ditto	17/	2/3..Granulles Arsen. Acid	15/	1/9.. " Regnaud	13/	3/0..Vichot's Trochisques	27/
4/6..Candé's (Lait Antéphilique)	40/	2/3.. " Iron	15/	7/0..Pierlot's Valerian	54/	4/6..Valentine's Meat Juice	40/
4/6..Capsules Bromide de Camph.	45/	2/3.. " Soda	15/	2/9..Rabuteau's Dragées Ferrug.	27/	4/6..Vin Mariani	42/
4/6.. " Matico	30/						

The above Wholesale prices do not include stamps; in those cases where they are necessary they will be supplied and charged extra.

MM. Roberts & Cie. ont l'honneur d'informer MM. les Pharmaciens Spécialistes de France et de l'Étranger qu'ils se mettent à leur disposition pour des dépôts qu'ils voudraient établir à Londres. On peut avoir tous renseignements en s'adressant à leur maison de Londres ou à Paris.

House in Paris, ROBERTS & CO., Place Vendome, 23.

ESTABLISHED 1823.

Since the introduction of Pepsine by BOUDAULT and DR. L. CORVISART, BOUDAULT'S Preparations have been considered the most reliable.

BOUDAULT'S PEPSINE.

The Paris Hospitals have used no other.



The Jury of the International Exhibition, Paris, 1867, awarded to BOUDAULT'S Preparations the only Medal given for Pepsine. Since that time it has taken the Medal at each of the International Exhibitions—Havre, Lyons, Vienna, Philadelphia, and Paris, 1878.

BOUDAULT'S PEPSINE—Dose, 5 to 10 grains—in bottles, one ounce, 5s.; in bottles, half-an-ounce, 3s.
BOUDAULT'S PEPSINE WINE—Dose, a table-spoonful—in bottles, 4s. and 8s.
BOUDAULT'S PEPSINE PILLS AND LOZENGES—Dose, 2 to 4—in bottles, 3s. 3d.

HOTTOT BOUDAULT, 7 Avenue Victoria, PARIS. SQUIRE, 277 Oxford Street, LONDON.

CAN BE HAD OF ALL CHEMISTS.

E. PLOMER & CO.,

CHEMISTS TO THE VICEROY OF INDIA,
SIMLA and LAHORE,

Will be pleased to hear from Manufacturers and
 others desiring to introduce Specialities and Novelties,
 &c., into India.

London Agents—**MESSRS. A. DURANT & CO.,**
 89 Gresham Street, E.C.

LEWIN & CO.,

THE ROYAL MEDICAL HALL, AGRA,
RANCH AT MORAR, GWALIOR,
WHOLESALE AND RETAIL
 Druggists, Manufacturing Chemists, Perfumers,
 Importers of Patent Medicines, &c., &c.,
 WINE, BEER, & SPIRIT MERCHANTS,
 IMPORTERS OF OILMAN'S STORES,
 Will be pleased to hear from Manufacturers and others desiring to
 introduce Specialities into the Indian Market.

F. H. FAULDING & CO.,
WHOLESALE DRUGGISTS,

Clarence Place, King William Street,
 ADELAIDE;

And PORT ADELAIDE.

ESTABLISHED 1845.

Messrs. SYMES & CO.

(His Excellency the Viceroy's Chemists),

SIMLA, INDIA,

Are open to undertake the introduction of Speci-
 alities and Trade Novelties, which, owing to their
 exceptional position, they can do more effectually
 than any other house in the country.

BALL, HOBSON & CO.,

PHARMACEUTICAL CHEMISTS,
THE MALL, UMBALLA, INDIA.
AGENCY FOR SPECIALITIES
AND TRADE NOVELTIES.

LONDON AGENTS:

Messrs. SAML. FITZ & CO., 70 & 71 Bishopsgate St. Within.

KEMPTHORNE, PROSSER & CO.

(SUCCESSOR TO H. E. YOUNGMAN & CO.),

Wholesale Druggists,
DRUGGISTS' SUNDRYMEN,
Importers and Commission
Merchants,
DUNEDIN AND AUCKLAND,
NEW ZEALAND.

FELTON, GRIMWADE & CO.,

Wholesale Druggists and Manufacturing Chemists,
MELBOURNE, VICTORIA.

LONDON AGENTS:—

Messrs. GRIMWADE, RIDLEY & CO., Mildmay Chambers, 82 Bishopsgate Street.
Wholesale Agents for Oil of Eucalyptus.

Myers & Solomon,

GENERAL MERCHANTS,

Importers and Commission Agents,

Dealers in every description of DRUGS and PATENT MEDICINES.

WAREHOUSE.....542 GEORGE STREET,
 STORES.....390 PITT STREET,

SYDNEY, NEW SOUTH WALES.

ESTABLISHED 1858.

Orders for consignments of all classes of Goods and Agencies will meet with
 every attention.

Catalogues, 76 pp. 8vo., gratis and post free on application.

REFERENCES—Messrs. H. & J. HART, 155 Fenchurch Street, E.C.
 Messrs. HILL & HARTRIDGE, 43 & 44 St. Mary Axe; Mr. HYMAN A.
 AHAMS, 87 to 90 Houndsditch N.E.; Mr. EUGENE RIMMEL,
 Grand, London.

THOMAS PARKER,

APOTHECARY AND PHARMACEUTIST.

An extensive Business connection
 among the Planters and South Pa-
 cific Traders enables me to introduce
 with advantage goods suited to the
 requirements of the Islands.

LEVUKA, FIJI ISLANDS.

ESTABLISHED 1870.

CHYMISTS' SHOW CASES.

TREBLE & SON'S NEW SHOW ROOM,

Containing upwards of 300 Glass Cases and
Dispensing Counters on view.

78 CRONDALL STREET (late Gloucester St.), HOXTON,
LONDON, N.

BEST WORK ONLY.]

[BEST WORK ONLY.]

FILMER KIDSTON,

MEDICAL SHOP FITTER & SHOW CASE MAKER,

AND MANUFACTURER OF EVERY DESCRIPTION OF DRUGGISTS' FURNITURE.

NOTICE.

Chemists commencing Business, Fitting-up Shops, or making alterations to their premises, should first inspect KIDSTON's modern and unique style of manufacture, so much approved of by the Profession for its elegant appearance and superior finish.

Plans and Estimates supplied. Gentlemen are invited to inspect KIDSTON'S

PRIZE DISPENSING COUNTER,

Which can be seen at the Show Rooms,

DUKE STREET, BRUSHFIELD STREET, BISHOPSGATE, LONDON.

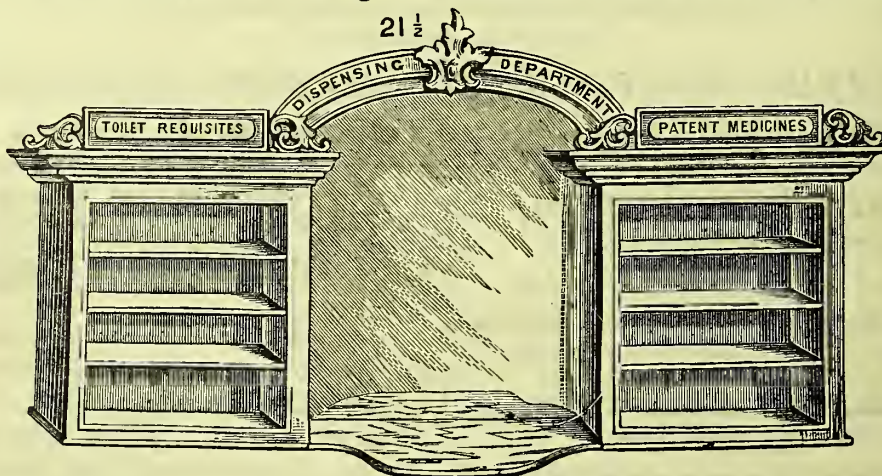
ILLUSTRATED LISTS OF SHOW CASES ON APPLICATION.

R. TOMLINSON,

DRUGGISTS' SHOP-FITTER, SHOW-CASE MAKER,

AND MANUFACTURER OF DRUGGISTS' SUNDRIES,
15 St. PAUL'S SQUARE, BIRMINGHAM

This Case is made of choice Mahogany, with Mirror in centre, and is lined at back with Black Enamelled Leather Cloth; it has Plate-Glass Shelves, Glass Knobs on the Doors, a Marble Slab in the Centre, and is fitted with Three Shelves at back. The Case is 6 feet long, 29 inches to cornice, 33 inches to top of tablets, and 36 inches to top of centre mirror.



For Export or easy transit it is admirably adapted, as it takes to pieces, and can be fixed again in four or five days into a Case 34 by 36, at a cost of 10s. 6d. which is allowed if the empty is kept, and the full value allowed if returned carriage paid.

Price. £8 10 0

VALUATIONS EFFECTED.

BUSINESS TRANSFER AGENT.

Second-hand Fixtures for Sale, Jars, Globes, Drawers, Bottles, Counter Glass Cases, Shelves, &
SECOND-HAND FIXTURES OF ALL KINDS BOUGHT AND EXCHANGED.

R. T. will wait upon parties fitting up, to plan and advise. 2nd-class fare only charged
FOR SALE, FIXTURES FOR SHOP, ABOUT SIXTEEN FEET BY TWELVE. WRITE FOR LIST.

PRECIPITATED CHALK.

Guaranteed Finest and Purest Quality.

MANUFACTURED BY LEVERMORE BROTHERS,
13 CULLUM STREET, LONDON.

Being the largest Manufacturers, are prepared to execute orders on the shortest notice.

APPLICATIONS FROM BUYERS ARE INVITED.

RAYNER'S
375 CHEMIST'S SHOP,

Fitted complete with all New Goods,

including GLASS SHOW CASES, SHOP BOTTLES, JARS, &c.

CAN BE SEEN AT HIS SHOW ROOMS, AS BELOW.

Those who are about fitting up should see the above before deciding.

Retail and Dispensing Counters, Shop Drawers, Window Enclosures, Wall and Counter Bent, Flat, and Upright Show Cases, Dispensing Screens, Show and Soda-water Stands, Sponge and Jar Cases, Tea and Coffee Bins, Window Carboys, Specie Jars, Bellied Shop Bottles and Jars, Store Bottles and Boxes, Tea, Coffee, and Sugar Mills, Tea, Coffee, and Store Canisters, Oil and Gas Cisterns, and every description of new and secondhand Shop Fixtures, Office Furniture, and Utensils required by the various Home and Colonial Trades. Three extra Show Rooms have just been added, to which an inspection is invited.

LLOYD RAYNER,

WHOLESALE AND EXPORT MANUFACTURER OF

MEDICAL AND GENERAL SHOP FITTINGS,
EXHIBITION AND COUNTER SHOW CASES.

SHOP FRONT BUILDER,
TEXTURE DEALER, AND MEDICAL LABELLER.

SHOW ROOMS AND OFFICES:

333 Kingsland Road.

FACTORIES:

Downham Road, Kingsland, and Whitmore Road,
Hoxton, London, N.



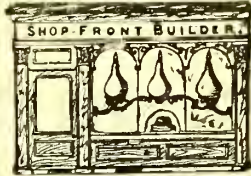
SHOP-FITTINGS.

ESTABLISHED 1830.

SAMUEL HOWLETT,

4 LINDLEY STREET (formerly called North St.), SYDNEY
STREET, MILE END, LONDON, E.

A few Minutes' Ride by Omnibus from the Bank.



MEDICAL AND GENERAL SHOP FITTER.

SHOPS FITTED BY S. H., and to whom references are kindly permitted:—

Messrs. Corbyn, Stacey & Co., 7 Poultry, London.

Mr. H. Deane, Clapham, London.

" John Broad, Hornsey Rise, London.

" N. Nicholson, Canonbury, London.

&c.

&c.

&c.

Messrs. Leath & Ross, St. Paul's Churchyard, London.

Harvey & Reynolds, Leeds.

Mr. W. F. Smith, 280 Walworth Road, S.E.

Mr. Thomas Hall, Lowestoft.

&c.

&c.

&c.

Cabinet Fitter to the Pharmaceutical Society of Great Britain. Manufacturer of every description of Air-tight Glass Show Cases for Chemists, Jewellers, &c. Medical Labelling, &c.

Plans and Estimates for Entire Fittings and Alterations supplied.

ESTABLISHED 1873.

FRANCIS J. W. POLGLASE

(Successor to the Tyne Vale Chemical Company),

TYNE VALE CHEMICAL WORKS, FORTH BANKS, AND SKINNER BURN ROAD,
NEWCASTLE-UPON-TYNE,

MAKER OF

ETHER } PURE, for Medicinal Purposes.
 } METH., for Ice Making, &c., &c. [dion, &c.

F. J. W. P., having for many years given special attention to the manufacture of ETHERS, is enabled to offer highly favourable terms to large buyers. Quotations on application

W. E. BUTT & CO.,

UNION CHEMICAL WORKS,

DEBNAM'S RD., ROTHERHITHE NEW ROAD, S.E.

MANUFACTURERS OF

PHARMACEUTIC, PHOTOGRAPHIC, and PURE
CHEMICALS.

SPECIAL PREPARATIONS:—

HYDROGEN PEROXIDE

IODOFORM

FRUIT ESSENCES

FERRUGINOUS SYRUPS

SCALE PREPARATIONS, &c.

THE CHEMIST AND DRUGGIST,

JULY 15,

GUARANTEED CIRCULATION,

10,000 COPIES.

ED. LOEFLUND'S (of Stuttgart) GENUINE EXTRACTS OF MALT.

LOEFLUND'S EXTRACT OF MALT, plain, Extr. Malti Pharm. Germ., 2s. 6d.

LOEFLUND'S EXTRACT OF MALT with Pyrophosphate of Iron, 2s. 9d.

LOEFLUND'S EXTRACT OF MALT with Hypophosphite of Lime, 2s. 9d.

LOEFLUND'S EXTRACT OF MALT with Cod Liver Oil, 2s. 6d.

MR. LOEFLUND, in the manufacture of his Extract, follows the special directions of Baron Liebig, who personally proposed to him, as early as 1866, the production of this Dietetic, the superiority of which has since been recognised by First Class Medals awarded at the Exhibitions of Paris, 1867; Moscow, 1872; Vienna, 1873; Philadelphia, 1876, &c.

LOEFLUND'S EXTRACT, in preference to many others, is not subject to fermentation or deterioration in any climate.

The Group Judges of the Philadelphia Exhibition, in their reports upon **LOEFLUND'S EXTRACTS OF MALT** stated the following:—

"Among all the preparations of Malt this has most fully met the requirements claimed for this most valuable agent."

"Commended for the manufacture of these products on scientific principles."

"Dr. von WAGNER."

Orders to be addressed to the following Depôts:—BARCLAY & SONS; BUTLER & CRISPE; W. EDWARDS & SON; EVANS & SONS; JOHN SANGER & SONS; and W. SUTTON & Co., London.

SOLUTION ODET.

Honoured by a Medal from the University
of France.

Cures Phthisis, Consumption, &c., and is employed in the Civil
and Military Hospitals of the Colonies.

M. C. ODET, Villette, near Vienne (Isère), FRANCE.
London: JOZEAU, WILCOX, &c., &c.

SAVARESSE'S CAPSULES

of membrane, each containing 15 drops Pure Maranham

COPAIBA BALSAM,

or, also of membrane, each containing 10 drops Purest Yellow

SANDAL WOOD OIL.

The efficacy of these valuable medicines is due to the ABSOLUTE purity
the Balsam or Oil, and to the very GRADUAL solvability of the membrane
as compared with gelatine. Box Copaiba (30 caps.), 2s. 6d. Sand
(24 caps.), 4s. 6d. Full directions. All Chemists.



TROMMER'S EXTRACT OF MALT

In the following Combinations, viz.:—

TROMMER'S EXTRACT OF MALT with Hops.

TROMMER'S EXTRACT OF MALT with Cod-Liver Oil.

TROMMER'S EXTRACT OF MALT with Hypophosphites.

TROMMER'S EXTRACT OF MALT with Pyrophosphate of Iron.

PREPARED BY—

TROMMER EXTRACT OF MALT COMPANY, FREMONT, OHIO, U

The attention of Chemists is respectfully invited to the profit resulting to them by supplying these
Preparations to Surgeons, viz., on the 4/6 size, 1/4 each, and on the 7/- size, 2/3 each.

SOLE WHOLESALE AGENTS—

**LYNCH & CO., 171a & 171b Aldersgate St
LONDON, E.C.**

N.B.—FULL DESCRIPTIVE PAMPHLET FORWARDED POST FREE ON RECEIPT OF APPLICATION.

CROSSED SWORDS.



TRADE MARK.

M. NEUSTADT & CO.,

25 MINCING LANE, LONDON, E.C.

PURE CHEMICALS used in Medicine and in Photography; also Medicinal Spirits and Tinctures P.B. in bond, put up specially to suit the requirements of the various markets.

HIGHLY ALBUMENIZED PAPER for Photography, the Crossed Swords Brand.

SULPHATE OF QUININE of the very purest quality.

(Wholesale only.) Special attention directed to our Trade Mark.

BENGER'S PREPARATIONS of the NATURAL DIGESTIVE FERMENTS.

Exceedingly active Solutions of the Digestive Principles of the Pancreas and Stomach respectively. DOSE, 5j to 3ij, diluted. (See Lumclian Lectures, by Dr. W. ROBERTS, F.R.S.)

LIQUOR PANCREATICUS (BENGER), REGISTERED; and LIQUOR PEPTICUS (BENGER).

Full directions for medicinal use, and for the preparation of Peptonized Food accompany each bottle.

These Preparations may be obtained in 4, 8, and 16-oz. scaled bottles, through all the leading Wholesale Houses, or of the Manufacturers,

NOTTERSHEAD & CO. (S. Paine & F. B. Bengel), Pharmaceutical Chemists, 7 Exchange St., Manchester.**H. RUBECK**

egs to call the
attention of
e Trade to his
English-Drawn
OIL
OF CLOVES.

OLEUM**OLEUM**

FINEST
ENGLISH
DRAWN.

**CARYOPH.****CARUI.**

GUARANTEED
PURE AND
UNADULTERATED

It is guaranteed
perfectly Pure, and equal
to any other make
both in quality and
aroma,
although considerably
cheaper.
It may be obtained of
all the principal
Wholesale Druggists.
A fair trial is solicited.

ACTIEN-GESELLSCHAFT

FUR

ANILIN-FABRIKATION, BERLIN,

Manufacturers of ANILINE COLOURS FOR DYEING AND PRINTING ON
SILK, WOOL, COTTON, LEATHER, &c., &c.

WORKS: RUMMELSBURG AND WIESENUFER, NEAR BERLIN.

OFFICES: TREPTOWER BRÜCKE, S.O. TELEGRAM: "ANILIN," BERLIN.

MANUFACTURERS OF

Rubines,
Acid-Rubine,
Ponceau's,
Bordeaux,
Phosphines,
Mandarines,

English Patent, No. 243 ⁷⁸
" " " 2828 ⁷⁸
" " " 1715 ⁷⁸
" " " 1715 ⁷⁸

Acid Yellow,
Malachite Greens, English " " 828 ⁷⁸
Acid Malachite Green, " " " 4406 ⁷⁸
Benzyle Blues,
Water Blues.

Eosines,
Rosanilinebase,
Safranines,
Coccines,
Cotton-Scarlets,
Aurantia,
Nigrosine,
Coralline,
Aurine,

Martius Yellow,
Berlin Brown,
Regina Violet,
Methyle Violets,
Hofmann Violet,
Marine Blue,
Paper Blue,
Pieric Acid,

Methyle-Orange,
Bismarck Brown,
Aniline Grey,
Methyle Greens,
Spirit Blue,
Mode Brown,
Nacarate,
Bavarian Blues,

Night Blue,
Humboldt Blue,
Alkali (Nicholson) Blue,
Guernsey Blue,
Gentiana and Royal Blue
Grey Pastes,
China Blue,
Indigo Blue.

Aniline Oils,
Aniline Salts in Cakes and Crystals,

Mirbane Oil,
Methyle Aniline.

SAMPLES AND PRICES ON APPLICATION. SPECIAL TERMS TO MERCHANTS AND SHIPPERS.

ALL GENUINE PACKAGES ARE PROTECTED BY TRADE MARK.

our Rubine (Magenta) and all colours derived therefrom are manufactured without employing arsenic acid.

WYLEYS & CO., COVENTRY,

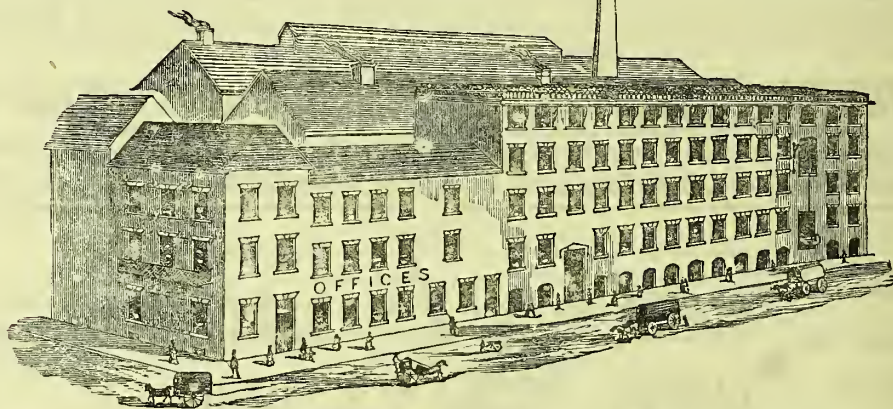
And 223 UPPER THAMES STREET, LONDON, E.C.,

ESTABLISHED

1790.

Wholesale and Export Druggists

and Drug Grinders.



LABORATORIES AND DRUG MILLS AT COVENTRY.

MANUFACTURERS OF CHEMICALS AND PHARMACEUTICAL PREPARATIONS

OF EVERY DESCRIPTION.

MESSRS. W. & CO. will be happy to forward their Prices Current, Book of Order Forms, and Pill List, containing recipes of Coated Pills, on receipt of business card.

SPANISH PRICE LISTS PUBLISHED QUARTERLY.

Export Orders receive careful attention.

Special Quotations for Goods required in quantity.

BAISS BROTHERS & CO., WHOLESALE AND EXPORT DRUGGISTS

AND

Manufacturing Chemists and Druggists' Sundriesmen.

ESTABLISHED 1833.]

JEWRY STREET, LONDON, E.C.

[ESTABLISHED 1833]

QUALITY GUARANTEED BY
AFFIXING OUR TRADE MARK
TO EVERY PACKAGE.

TRADE MARK



QUALITY GUARANTEED BY
AFFIXING OUR TRADE MARK
TO EVERY PACKAGE.

FOR EXPORT ONLY.

An exhaustive illustrated Export Prices Current, comprising every requirement of the Chemist and Druggist, will be published the 1st of January, April, July, and October, and can be had by application (post free) on receipt of trade card. The attention of the trade is especially called to their preparations, including Extracts, Concentrated Decoctions, and Infusions, for which their name is well established, and are guaranteed to be prepared with the utmost care from the finest drugs, and which will keep in hot climates any reasonable length of time.

Manufacturers of Fruit Essences, which form a ready means when mixed with Acidulated Simple Syrup, of producing an article that has all the flavour of the freshly pressed fruit, and can thus be used with aerated water as a most refreshing drink in all hot climates.

CORRESPONDENCE IN ALL LANGUAGES.

Æthers, Alcohols, Liniments, and Tinctures shipped in bond at lowest market prices.

Patent Medicines and Proprietary Articles at special net prices. Scientific and Philosophical Instruments. Surgical Instruments.

Indents sent through Merchants should specially bear the name of BAISS BROTHERS & CO., and will be put on very best terms.

Dispensers should please note that

LIEBREICH'S SYRUP OF CHLORAL

is prepared only by CORBYN, STACEY & CO., and is "Guaranteed by Liebreich as the *purest* form of the drug." STRENGTH—Ten grains of Chloral in each Fluid Drachm or Measured Teaspoonful.

Bottles, 3/6 and 2/- each, and 1-lb. Bottles for Dispensing, with the signature of Dr. Liebreich.

PEPSIN-ESSENZ—Liebreich. "The researches of PANUM and PREYER have shown that of the various solutions the BEST is the Pepsin-Essenz of OSCAR LIEBREICH."—*British Medical Journal*.
Bottles, 2/6 each.

CHAULMOOGRA OIL—*Ol. Gynocardiæ.*

The official remedy in India for Leprosy, Scrofula, Skin Diseases, and Rheumatism. Such cases have recently been successfully treated by CORBYN & Co.'s PURE OIL and Preparations.

The Pure Oil, in Bottles, 4/6, 10/6, 20/- each. Ointment, in Pots, 1/9, 3/-, 10/6 each. Bottles (containing the Pure Oil), in Boxes, 2/-; Bottles, 5/-, 22/6, and 40/- each. Soap, 1s. Tablets.

CORBYN'S MALT EXTRACT—*prepared in vacuo.*

This is supplied pure or in combination with Cod Liver Oil, Iron, or the Hypophosphites. In Bottles, at 2/- each.

QUONYMIN—DAMIANA—GRINDELIA—MENTHOL.

CORBYN, STACEY & COMPANY, Wholesale and Export Druggists,
300 HIGH HOLBORN, LONDON.

General Prices Current of Drugs and Preparations forwarded on application.



BURGESS, WILLOWS & FRANCIS,
WHOLESALE & EXPORT DRUGGISTS,
AND
MANUFACTURING PHARMACEUTICAL CHEMISTS,
101 HIGH HOLBORN, LONDON.

Price Lists sent on application. Special quotations given for Shipping Orders.

DRUGS, CHEMICALS, AND PHARMACEUTICAL PREPARATIONS.

BARRON, SQUIRE & CO.

(LATE DREW, BARRON, & CO.),

WHOLESALE & EXPORT DRUGGISTS,

BUSH LANE, LONDON, E.C.,

MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS,

By to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive careful attention and prompt execution.

Messrs. B., S. & Co. request the attention of their friends and the Trade, at home and abroad, to their having PURCHASED THE BUSINESS of Messrs. JAMES BASS & SONS, Hatton Garden, and with it the various Formulæ from which their Special Preparations have been made, and pledge themselves to supply them in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

DUNCAN, FLOCKHART & CO.,

Wholesale and Export Druggists, Edinburgh.

CHLOROFORM

Prepared from Pure and Methylated Spirit.

Put up in all sizes of bottles. A strap with Name and Trade Mark of the Firm is placed over the stopper of each bottle. For Export, in bottles corked and luted (stoppers attached) and in hermetically sealed flasks when required.

N.B.—We guarantee our Chloroform prepared from METHYLATED SPIRIT to be PURE CHLOROFORM, answering all the tests of the British Pharmacopœia.

CHLORIC ETHER.

LIQUOR RHEI DULC. | LIQUOR SENNAE DULC. | SYR. FERRI PHOS. CO. (PARRISH).

Fluid Extracts, Concentrated Infusions, and all Pharmacopœial Preparations

MANUFACTURERS OF THE CELEBRATED

Blue Black Writing Ink and Copying Ink

SHIPPERS SUPPLIED ON LIBERAL TERMS

White Gutta Percha for Stopping Teeth, in 6d. and 1s. Boxes.

Medicated Pessaries, Suppositories, and Bougies, prepared with either Cacao Butter or Gelatine.

DUNCAN, FLOCKHART & Co.'s shape—the Minié bullet—approved by the Medical Faculty throughout the country.

J. F. MACFARLAN & CO.,

EDINBURGH AND LONDON,

Manufacturers of

MORPHIA AND ITS SALTS

And all Products from Opium; also

PURE CHLOROFORM

Answering all the Tests of the British Pharmacopœia.

Is extensively used in the Hospitals and by Private Practitioners, and is rapidly superseding the expensive Alcoholic Preparation.

MAY BE HAD FROM ALL THE WHOLESALE HOUSES, AND AT

17 North Bridge, Edinburgh, and 5 Barge Yard, Bucklersbury, London.

LIQUOR BISMUTHI SCHACHT

Carefully purified from Arsenic, Copper, Silver, Tellurium, Selenium, and all contaminations. Dose: 3 j. diluted.

SYRUPUS CINCHONÆ ALCOHOLICUS SCHACHT

Bark minus woody fibre. Dose: 10 to 30 drops.

MANUFACTURED IN THE LABORATORY OF

SCHACHT & TOWERZEY, Clifton, Bristol

And to be obtained of all Wholesale Druggists in London and the Provinces.

EVANS, LESCHER & WEBB,

60 BARTHOLOMEW CLOSE, LONDON;

SUGDEN EVANS & CO.,
Montreal, Canada.Paris Agency,
20 RUE J. J. ROUSSEAU.

EVANS, SONS & CO.,

56 HANOVER STREET, LIVERPOOL;

WHOLESALE & EXPORT DRUGGISTS.

EVANS, LESCHER & WEBB have returned to their premises at 60 Bartholomew Close, London, which have been rebuilt, where they request that all orders and letters be addressed. The New Buildings are bright and commodious, and occupy nearly 9,000 square feet. These Warehouses have very extensive cellars, steam power for lifts, cranes, &c.; and the various departments, comprising over 36,000 square feet, have been provided with modern improvement, so as to execute orders of any magnitude in a few days' time.

ILLUSTRATED EXPORT LISTS

(About 150 pages each), containing Prices of Drugs, Chemicals, Pharmaceutical Preparations, Druggists' Sundries and Patent Medicines, &c., are sent post free to any part of the World on application (ENGLISH, in January and July; SPANISH, in April and October).

THE ABOVE LISTS OFFER UNUSUAL ADVANTAGES AS A MEDIUM FOR ADVERTISEMENTS.

Messrs of Proprietary Medicines, Perfumers, &c., by advertising in same, will have their specialties brought prominently under the notice of dealers in all parts of the world. Terms for advertising (which are strictly moderate) may be obtained by applying to Messrs. EVANS, SONS & Co., 56 Hanover Street, Liverpool. All Advertisements translated into Spanish free of charge.

H. SUGDEN EVANS & CO., WHOLESALE DRUGGISTS,

MANUFACTURING PHARMACEUTICAL CHEMISTS
General Commission Merchants,
MONTREAL, CANADA, and ROUSES POINT, N.Y., U.S.A.

H. SUGDEN EVANS & Co. are prepared to accept Agencies for European Proprietary Articles, Perfumery, &c. for the Dominion of Canada and United States of America. All communications, in the first instance, to be addressed to EVANS, SONS & Co., 56 Hanover Street, Liverpool.

THE NORTH BRITISH CHEMICAL CO., Limited, GLASGOW AND LONDON.

OFFICES—

LONDON:
12 MARK LANE.GLASGOW:
49 HOPE STREET.

GEORGE PUGH, AGENT.

MEDALS AWARDED.

SOCIETY OF ARTS	1862.
LONDON	1862.
DUBLIN	1865.
PARIS	1867.
HAVRE	1868.
VIENNA	1873.
PARIS	1878.

MANUFACTURERS OF

WORKS—

WHITECROOK, CLYDEBANK.
MIDDLETON, TYREE.
LOCH EPORT NORTH UIST.
FREAGH, MILTOWN MALBAY.
E. C. C. STANFORD, MANAGER.

IODINE AND RESUBLIMED IODINE.
IODIDE AND BROMIDE POTASSIUM.
CHLORATE POTASH.

CAUSTIC SODA, WHITE, 60%.

SEAWEED CHARCOAL, &c.

SILVER MEDAL AWARDED INTERNATIONAL EXHIBITION, PARIS, 1878.
TRADE SUPPLIED THROUGH the LONDON and PROVINCIAL WHOLESALE DRUG HOUSES.
MERCHANTS AND SHIPPERS CAN OBTAIN TERMS ON APPLICATION TO

GEORGE PUGH, Sole Agent, Dunster House, 12 Mark Lane, London, E.C.

The Chemische Fabrik auf Actien, vormals E. Schering, Berlin,

MANUFACTURERS OF

SCHERINGS' PURE CHEMICALS

PARTICULARLY OF

ACID, CARBOLIC or Phenol Absolut.	Fine white hard crystals	Free from Cresylic Acid. Watery solution will not show greasy spots floating on top.
ACID, GALLIC	Almost white needles	Freely and entirely soluble in alcohol or water
„ PYROGALLIC	Bi-sublimed, white, bulky	Ditto ditto ditto.
„ SALICYLIC (Kolbe's)	White, powder, crystallised, and dialysed	Dissolves colourless in water or alcohol purest for medicine.
„ TANNIC	Lightest crystals	Dissolves almost colourless in water, alcohol and ether.
„ „	Powder and granulated	Dissolves freely in water, alcohol, and ether.
CELLOIDINE (Patent)	Gelatine plates	Purest Pyroxylin; inexplusive.
CHLORAL HYDRATE	White cake and crystals	See Liebreich's, below.
CHLORAL HYDRATE (Liebreich's)	Transparent rhomboidals (facsimile of Dr. Liebreich's)	Will not decompose by age, as the ordinary product will do, to the danger of the patient
CHLOROFORM (ex Liebreich's Chloral)	Schering's original label	Free from foreign chlorides. Will leave no odour on evaporation.
CROTON CHLORAL	Shiny crystalline scales. (Powder form most objectionable)	Free from foreign chlorides.
GLYCERINE	S.G. 1260, double distilled, brilliantly white, odourless; also lower S.G. and qualities	Free from lime, chlorides, metals; will stand severest chemical tests.
IODINE	Resublimed, fine scales	Purest.
IODOFORM	Dry yellow scales	Purest, by medical reports.
POTASS, BROMIDE	Fine white dry regular crystals	Perfectly free from iodide, and the most free from chloride.
„ CAUSTIC	Lump and stick, white	Commercially pure, and pure by alcohol.
„ CYANIDE	Ditto ditto	30%, 45%, 60%, and 95%.
„ PERMANGANATE	Large and small crystals	Chemically pure.
„ IODIDE	Fine white dry regular crystals	Apply Barytic and other tests. This will never change colour.
SILVER, NITRATE	Fine large crystals	63 to 63½% pure silver.
SODA, CAUSTIC	Lump and stick, white	Chemically pure, and pure by alcohol.
SODA SALICYLATE, and other Salicylates	White powder and crystals	Freely soluble in water and alcohol.

H. FINZELBERG, of Andernach-on-Rhine,

MANUFACTURER OF

ERGOTINE, pure Dialysed	Brown colloid, purified by Dialysis	Free from all saline matter present in ordinary Ergotine and extracts.
FERRUM OXYD. (5% Dialysed)	Transparent brown liquid, purified by Dialysis	Free from all saline matter. Diluted by times its weight of water, will stand test of Nitrate of Silver.
PEPSIN PORCI (100%)	White, sweet, odourless powder	Freely soluble in water, not hygroscopic and will not deteriorate; will dissolve by Wittstein's test) 100 parts of white of egg and 250 parts of fibrine.

GUSTAV RHODIUS, of Burg Brohl.

MANUFACTURER OF

POTASS, BICARBONATE	White powder and crystals	Dissolves bright in water.
SODA, BICARBONATE	Purest white powder, taste neutral, speciality for Soda powder	See tests P.B.
SODA, CARB. (purest)	Dry, for pure Soda Salts	Indifferent to Nitrate of Silver and Chloride of Barium.

SOLE WHOLESALE AGENTS—

A. & M. ZIMMERMANN, 21 MINCEING LANE, LONDON, E.C.

For Quotations, &c., apply to Wholesale and Export Drug and Chemical Houses.

THE ONLY "GOLD MEDAL" PEARL-COATED PILLS.

Under the Patronage of



H.M. Government.

Richardson's Soluble Pearl-Coated Pills.

We were induced some years ago to manufacture on a large scale the following Formulæ of Uncoated Pills, the sale has been immense. We have further acceded to the urgent solicitation of many of our friends to send out the same forms **COATED** and by **WEIGHT**. They are sent out in **ONE POUND BOTTLES ONLY**, stamped with our Name and Trade Mark. We beg to intimate that the following forms **ONLY** will be **SOLD BY WEIGHT**. Just published, the **SIXTH EDITION** of our **SOLUBLE** Pearl Coated Pills List, containing nearly **SEVEN HUNDRED FORMULÆ**.

Pills of the British Pharmacopœia.

	Price per Pound.		Nos.	Price per Pound.	
	Coated.	Uncoated		Coated.	Uncoated
-Pil. Aloes Barb., P.B. ...	5/6	4/6	9.—Colocynth et Hyos., P.B. ...	13/	12/
„ Aloes et Assafœt. P.B. ...	5/	4/	Prepared with Resin Scammony.		
„ Aloes et Ferri, P.B. ...	5/	4/	10.—Pil. Conii Co., P.B. ...	8/	7/
„ Aloes et Myrrh., P.B. ...	12/	11/	11. „ Ferri Carb., P.B. ...	5/	4/
„ Aloes Socot., P.B. ...	6/6	5/6	12. „ Ferri Iodid., P.B. ...	8/	7/
„ Assafœtidæ Co., P.B. ...	6/	5/	13. „ Hydrarg., P.B. ...	5/	4/
„ Cambogiæ Co., P.B. ...	6/	5/	14. „ Hyd. Subchlor. Co., P.B. ...	6/6	5/6
„ Colocynth Co., P.B. ...	22/	21/	15. „ Ipecac. et Scillæ, P.B. ...	7/	6/
Prepared with Virgin Scammony.			16. „ Plumbi c. Opio, P.B. ...	12/	11/
„ Do. do. ...	13/	12/	17. „ Rhæi Co., P.B. ...	7/	6/
Prepared with Resin Scammony.			18. „ Saponis Co., P.B. ...	12/	11/
-Colocynth et Hyos., P.B. ...	20/	19/	19. „ Scillæ Co. ...	5/	4/
Prepared with Virgin Scammony.					

N.B.—Unless distinctly ord-red "Prepared with Virgin Scammony," Nos. 8 and 9 "Prepared with Resin Scammony" are always sent.

Non-Official Formulæ.

	Price per Pound.			Price per Pound.	
	Coated.	Uncoated		Coated.	Uncoated
-Pil. Aperiens.			FORM N.—Pil. Tussi., No. 2.		
Ext. Aloes Aq. ... 3j.			P. Ipecac. P. Scillæ P. Capsici.		
Pulv. Cambog. ... 4 grs.			P. Opii P. G. Ammon. Ext. Conii.	11/	10/
„ Jalapæ ... 8 „			FORM O.—Pil. Tussi., No. 3.		
„ Colocynth ... 6 „			Pulv. Ipecac. Co. P. Gum. Ammon.		
„ Hydr. Subchlor. 4 „			Scillæ Sapo. Hyps.	7/	6/
„ Sapo. Hyps. 4 „			FORM P.—Pil. Tussi., No. 4.		
Gingerin ... 2 „ Ft. Pil. xij.	6/	5/	P. Ipecac. Co. P. Gum. Ammon.		
Each Pill contains Calomel $\frac{1}{3}$ gr.			Pulv. Scillæ Pulv. Sapo.		
-Pil. Aperiens, as No. 20, with 1 gr.			Antim. Tart. Morphia Acet.	16/	15/
Calomel in each Pill ...	6/	5/	FORM Q.—Castor Oil Pills.	5/	4/
-Pil. Aperiens, as No. 20, sine Calomel	6/	5/	<i>A Mild Aperient for Females.</i>		
1.—Pil. Aperiens, No. 20, half size ...	7/	6/	FORM R.—Dandelion Pills.		
1.—Pil. Aperiens, No. 21, half size ...	7/	6/	Ext. Aloes Aquos P. Zingib.		
2.—Pil. Aperiens, Hospital.			Ext. Taraxaci Sapo. Mollis.	6/	5/
Ext. Aloes Aq. ... gr. ij.			FORM S.—Pil. Anthem. Co.		
Pulv. Cambogiæ ... „ ss.			Pulv. Rhæi Pulv. Zingib.		
„ Jalapæ ... „ i.			Aloes Socot. Ext. Anthem.	9/	8/
„ Colocynth ... „ ss.			Ol. Carui.		
Hyd. Subchlor. ... „ ss.			FORM T.—Pil. Cochiae Co.		
Pulv. Saponis ... „ ss.			Pulv. Aloes Cape. P. Cambogiæ.		
Ol. Menth. Pip. ... „ 1-16th.			P. Jalapæ P. Sapo. P. Zingib.	5/	4/
„ Caryoph. ... „ $\frac{1}{8}$ Ft. Pil. i.	6/	5/	Ol. Caryoph.		
FORM I.—Pil. Aperiens Fort.			FORM U.—Pil. Tonic.		
Same as No. 257, except that each			Ferri Sulph. Ext. Gentian.	5/	4/
5 gr. Pill contains 1 gr. Calomel...	6/	5/	Pulv. Zingib.		
FORM J.—Pil. Aperiens Mit.			FORM V.—Pil. Prandii, No. 1.		
Same as above, omitting the Calomel	6/	5/	Ext. Aloes Aq. Ext. Gentian.	9/	8/
FORM K.—Pil. Antibilious.			Ext. Anthem. P. Capsici.		
Pil. Hydr. Ext. Coloc. Co.			FORM W.—Pil. Prandii, No. 2.		
Ext. Hyosciami.	11/	10/	Ext. Aloes Aquos.	7/	6/
FORM L.—Pil. Antibil. c. Podophyl.			Pil. Rhæi Co. Ext. Gentian.		
Pil. Rhæi Co. Ext. Hyosciami.			FORM X.—Pil. pro Diarrhœa.		
Podophyllin gr. $\frac{1}{4}$ in each Pill.	11/	10/	Acid. Tannic. Camphor.	9/	8/
FORM M.—Pil. Tussi., No. 1.			Capsicum Pulv. Opii.		
Pil. Scillæ Co. Pulv. Opii.			FORM Y.—Pil. pro Gout.		
Antim. Tart. P. Cambog.			Ext. Colehici Ammon. Carb.	7/	6/
Ol. Anisi.	9/	8/	Pulv. Guaiac. Resin. P. Opii.		
			FORM Z.—Pil. Diuretic.		
			Pulv. Digitalis.	6/	5/
			P. Scillæ Pil. Hydrarg.		

N.—All the above Formulæ can be had either in 4 or 5 grain Pills; the former are sent where the size is not stated.

Important Caution.—Beware of Unscrupulous Imitations. Observe Trade Mark on every Bottle.

JOHN RICHARDSON & CO., MIDLAND COUNTIES STEAM LABORATORY, LEICESTER.

TRADE MARK.—SANCTIONED BY HER MAJESTY'S GOVERNMENT

**HEALTH,
STRENGTH,**



**AND
ENERGY.**

Discovered and so named, A.D. 1862, by R. D. Lalor, M.D.

A Pure Solution of PHOSPHORUS in combination with Quinia, Cypriden and Xanthoxylin, the Wonder of Modern Chemistry, from Strychnia and all Dangerously Active Drugs. Pleasant to the taste, and the only Safe, Prompt, and Reliable PHOSPHORUS REMEDY for Overworked Brain, Worry, Anxiety, Excitement, Late Hours, Business Pressure, Nervous Prostration, Nerve Pain, Wasting Diseases, Asthmatic, Consumptive, Stomach and Liver Complaints, Impaired Nutrition, Impoverished Blood, Premature Decline, and all morbid conditions of the system, dependant upon the deficiency of Vital Force.

DR. LALOR'S PHOSPHODYNE

Purifies and enriches the Blood; Clears the Skin; thoroughly invigorates the Brain, Nerves, and Muscles; Re-energies the Failing Functions of Life by supplying the PHOSPHORIC element which has been wasted, and thus Imparts Energy and Fresh Vitality to the Exhausted Nervo-Electric Force, and Rapidly Cures every form of Nervous Debility, Paralysis, Nervous Mind and Heart Diseases, from whatever cause.

CAUTION.—The Name DR. LALOR'S PHOSPHODYNE is blown in the glass of each bottle, and the Genuine Phosphodyne manufactured at and is obtainable only direct from Dr. Lalor's Laboratory, London, England. WHOLESALE and EXPORT HOUSES are specially requested to NOTE this, and to pass their Indents through the London Houses, or English Firms of known respectability ONLY, to ensure their being supplied with the Special Medicines prepared solely by Dr. Robert D. Lalor, Bay House, 32 Gaisford Street, London, England. Sold in Bottles at 4s. 6d. and 11s., by all Export, Wholesale, and Retail Medicine Vendors throughout the World.

IMPORTANT NOTICE.—Every Bottle bears the British Government Stamp, with the words DR. LALOR'S PHOSPHODYNE, London, England, engraved thereon by Order of Her Majesty's Honourable Commissioners; IF NOT, IT IS A FORGERY, as you have been imposed on by a worthless Imitation.

"The Phosphoric Treatment of Disease," with Cures, post free from

DR. R. D. LALOR, Bay House, 32 Gaisford Street, LONDON, N.W.

THE SOLE PROPRIETOR AND ORIGINATOR OF PHOSPHODYNE.

A supply of suitable printed matter for distribution will be sent per enclosure to any London House on receipt of a letter of advice.

ASTHMA.

Night Cough and other Diseases of the Respiratory Organs speedily relieved by smoking the Compound Opiated Cigarettes.

Recommended by DR. REGINALD THOMPSON, Senr. Asst. Phy. to the Brompton Consumption Hospital, in *The Practitioner*.

"The Therapeutic Value of Drug Smoking."

These Cigarettes are used at the Brompton Consumption Hospital, and are prescribed by many eminent physicians. They are prepared and put up in Boxes containing 12 and 36 Cigarettes, price 1s. and 2s. 6d. each, by

STICKLAND & ROWE, Pharmaceutical Chemists, 23 Cromwell Place, South Kensington, S.W.

PURE VEGETABLE CHARCOAL.

For the Cure of Bad Legs, Old Ulcers, Scorbutic Eruptions, and Gangrene; also DOMESTIC CHARCOAL, an indispensable household requisite.

In Boxes 1s. each, 8s. per dozen, or 90s. per gross, carriage paid.

WELLS & CO., Manufacturing Chemists, BARTON-ON-HUMBER.

THE ACME OF PERFECTION.

SHAPED PLASTERS.

Emp. Belladonnae, Opium, &c.

Spread on White Leather, with

ADHESIVE MARGIN.

Shape	Size	Shape	Size
Square	4½ × 5½	Oblong	6½ × 11
Oval	5 × 7	"	7 × 13½
Saddle	4½ × 9½	Heart	5 × 7
Oblong	4½ × 7	"	6½ × 8½
"	5½ × 9½	For Breast	7 diameter
"	6 × 8½		

Terms on application to the Sole Manufacturers,

GOOSEY & ROGERS, Chemists,

Stepney, London, E.

Can be ordered through any Wholesale House.

DINNEFORD'S FLUID MAGNESIA



PERFECT IN PURITY AND UNIFORM STRENGTH.

Sold by all Wholesale Druggists, and by the Manufacturers,

**DINNEFORD & CO.,
Pharmaceutical Chemist
180 NEW BOND STREET, LONDON.**

Dr. J. COLLIS BROWNE'S CHLORODYNE.

THE ORIGINAL AND ONLY GENUINE.

IMPORTANT CAUTIONS

From Lord Chancellor SELBORNE, Vice-Chancellor Sir W. PAGE WOOD,
and the LORDS JUSTICES OF APPEAL.

VICE-CHANCELLOR SIR W. PAGE WOOD, by whom the suit in Chancery was first heard, stated in his judgment that Dr. J. Collis Browne was undoubtedly the Inventor of Chlorodyne, that the whole story of the Defendant Freeman was as completely untrue as the falsehood he had deposed to with reference to the use of his Chlorodyne in the Hospital.

The VICE-CHANCELLOR also stated, 'that Chlorodyne was a fanciful name, and had application been made sooner, the Court would have given Dr. Browne protection.'

LORD CHANCELLOR SELBORNE coincided with the judgment of the Vice-Chancellor upon this point, and stated 'that had application been made at a proper time and place, the Court would have found means to restrain the Defendant from misrepresenting the decision of the Vice-Chancellor.'

LORD JUSTICE JAMES, on appeal, stated in his judgment, 'that the Defendant Freeman had made a deliberate misrepresentation of the decision of Vice-Chancellor Wood.'

It was proved in Court, on affidavit by Mrs. Forbes, of Paris, that the testimonial published in the *Times*, November 14th, 1866, speaking of the great efficacy of Chlorodyne in Cholera, referred to Dr. J. Collis Browne's Chlorodyne, and that she never knew any other, that she had written to the Defendant Freeman to that effect; notwithstanding which notice the Defendant publishes the said testimonial as referring to his medicine.

The Editor of the *Medical Times*, in his report on Chlorodyne, January 13th, 1866, gives information that the Chlorodyne referred to was the medicine introduced by a retired Army Medical Officer, which was Dr. J. Collis Browne; still this is published by the Defendant as testimony to his medicine.

Numerous affidavits from eminent Physicians and others were produced in Court, stating that Dr. J. Collis Browne was the Inventor of Chlorodyne, and that when prescribing they mean no other.

The Defendant himself publishes that his compound is in effect and composition quite different to any other preparation; nevertheless he assumes the name, testimonials, &c., of Chlorodyne.

Technicalities in law prevent that protection which the public should justly have against such a course of conduct. It is now incumbent on all who purchase Chlorodyne to see that the name, 'Dr. J. Collis Browne's Chlorodyne,' is engraved on the Government Stamp, as it is not sold otherwise. All other compounds under the name of Chlorodyne are spurious. All attempts at analysis have failed; hence the statement that the constituents of Chlorodyne are known is a misrepresentation.

FURTHER IMPORTANT NOTICE.

The subjoined list of eminent Firms concur with Vice-Chancellor Sir W. Page Wood's statement in Court, that Dr. Collis Browne was undoubtedly the Inventor of Chlorodyne; and that when Chlorodyne, or the Original Chlorodyne, is ordered, they invariably supply Dr. J. Collis Browne's:—

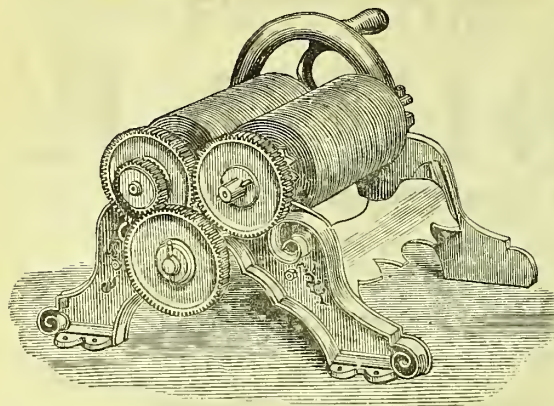
Apothecaries' Hall, London.	Gale & Co., London.	Newbery & Sons, London.
Allen, Hanbury & Co., "	Giles & Son, Clifton.	Oldham, G., & Co., Dublin.
Baiss Brothers, "	Goulding, Messrs. Cork.	Parsons & Richardson, Leicester.
Banks & Richards, Birmingham.	Gratton & Co., Belfast.	Peake, Allen & Co., Dublin.
Barron, Harvey & Co., London.	Grimwade, Ridley, London.	Raimes & Co., Liverpool.
Bell, John, & Co., "	Grindley & Son, Chester.	Raimes & Co., York.
Bourne & Taylor, "	Hearon, Squire & Francis, London.	Raimes, Blanshards & Co., Edinburgh.
Corbyn & Co., "	Hodgkinson, Tonge & Stead, "	Sang & Barker, "
Cox & Gould, "	Hopkins & Williams, "	Sanger, J., & Sons, London.
Curling & Co., "	Hunt & Co., Exeter.	Sim, James, & Co., Aberdeen.
Curtis & Co., "	Hunt, A., & Co., "	Smeeton, W., Leeds.
Davy, M'Murdo & Co., "	Johnson, J. H. & S., Liverpool.	Southall & Co., Birmingham.
Drew, Barron & Co., "	Langton, W., & Co., London.	Sutton, W., & Co., London.
Drew, B., & Alexander, "	Lynch & Co., "	Tomlinson, Hayward & Co., Lincoln.
Dunn & Company, "	Mander, Weaver, Wolverhampton.	Treacher, Hodgkinson & Co., "
Edwards, W., "	Marsden & Sons, London.	Westrup, J. B., Kensington.
Evans, Gadd & Co., Exeter.	Maw & Son, "	Westwood & Hopkins, Lincoln.
Evans, Lescher & Evans, London.	Meggeson & Co. "	Woolley, James, Manchester.
Ferris & Co., Bristol.	Mackay, John, Edinburgh.	Wyleys & Brown, Coventry.
Foulger, S., & Son, London.	Morson, T., & Son, London.	Yates & Co., London.
Frazer & Green, Glasgow.		

After these public statements in a Court of Equity, and subsequent confirmation by the trade at large, no Chemist can conscientiously use or sell any other compound for Chlorodyne without committing a breach of faith, unjust to patient and physician. The value of the remedy alone creates the great demand.

Sold in Bottles—1s. 1½d., 2s. 9d., 4s. 6d., and 11s. Usual Discount to the Profession.

SOLE MANUFACTURER,

J. T. DAVENPORT, Pharmaceutist,
33 GREAT RUSSELL STREET, BLOOMSBURY SQUARE, LONDON.



PILL MACHINE

(COCKING'S PATENT DOUBLE-ACTION),

Used extensively in Great Britain, India, Australia, America, and the Continent

PRICE £10.

"Nov. 19, 1879.—Sir.—The Pill Machine answers perfectly, we therefore send cheque which please acknowledge.—Yours faithfully, H. THORNTON & SON, Bishop Auckland."

COCKING'S CYLINDRICAL PIPER,

Turns out One Pound of Pill Mass in perfect Pipes in 3 Minutes.

PRICE 50/-

This little Machine is worked with the ordinary Counter Pill Machine, and no weighing or rolling out of the Mass is required, the saving of time is very great and manifest. It may be inspected, and its practical working shown at Mr. CASSIE'S, 49 Newgate Street, London.

"Dec. 9, 1879.—Sir.—Herewith I remit you cheque, 50/-, for Piping Machine. It is quite a success, and saves a considerable deal of time.—W. J. PALMER, Pharmaceutical Chemist King's Lynn."

SPECIAL TERMS TO CASH BUYERS FROM THE INVENTOR,

T. S. COCKING, Chemist

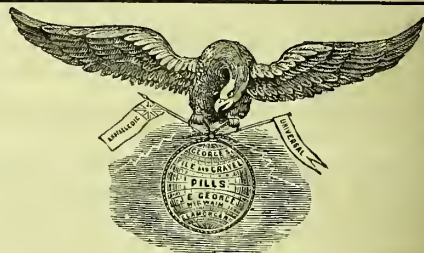
72 & 74 High Street, Sittingbourne, Kent.

Also through the Sundry Houses.

Chemists and other Gentlemen who are obliged to lead sedentary lives will find a good and comfortable corrective

LOWE'S PILLS. FOR THE HEAD STOMACH & LIVER. AN EXCELLENT PILL FOR PROMOTING APPETITE AND DIGESTION.

Sold by all Chemists and Patent Medicine Dealers, in Boxes, at 7½d., 13½d., and 2s. 9d. each; or post free from the Proprietor, ROBERT HENRY LOWE, 187 Bilton Road, Wolverhampton, upon receipt of the price in Postage Stamps. Patent Medicine Vendors supplied with handbills with Name and Address upon receipt of card or label.



(REGISTERED.)

GEORGE'S PILE & GRAVEL PILLS

A Safe, Certain, and Speedy Cure for PILE and GRAVEL. This Remedy may be had in the following forms:

- NO. 1. GEORGE'S PILE AND GRAVEL PILLS.
- NO. 2. GEORGE'S GRAVEL PILLS.
- NO. 3. GEORGE'S PILLS FOR THE PILES.

In Boxes, 1s. 1½d. and 2s. 9d. each. Wholesale from all the Patent Medicine Houses and Wholesale Druggists. Notice, the Title "PILE & GRAVEL PILLS," is Copyright.

DENUAL'S MEDICINAL CAPSULE

ARE THE BEST AND CHEAPEST.

Attention is called to the following Articles:—

	Trade Price.	Retail
Pernvian Mixture Capsules	12/ & 9/	3/ & 4/
Matico Oil and Copaiba Capsules	13/	3/
Santal Oil Capsules (36 in each box)	25/	4/6 to 5/
Cubeb Oil and Copaiba Capsules	9/	2/ to 2/6
Copaiba, Cubeb Oil, and Santal Oil Capsules	17/	4/ to 4/6
Copaiba Capsules, No. 0	7/	1/6
" " No. 1	6/6	1/6
" " No. 2	6/	1/
Copaiba, Alum and Cubeb	7/	2/
Compound Ferruginous	7/	2/
Cubeb Oil	11/	2/
Male Fern Oil	12/	3/
Cod Liver Oil	6/	1/6
Castor Oil	5/6	1/
Denal's Injection (to ensure a radical cure in two days)	18/	2/

ALL DRUGS WARRANTED TO BE GENUINE.

Jules Denoual, Carlton House, 4 New Cross Rd., London,

SMITH'S TASTELESS DANDELION ANTIBILIOUS PILLS,

Price, 1s. 1½d. & 2s. 9d. per Box.

A NON-MERCURIAL LIVER MEDICINE, specially useful to the habitually constipated, and safe for all ages.

Worthy of trade notice. Reliable, and rapidly increasing in public acceptance.

PREPARED ONLY BY

W. F. SMITH, M.P.S.,
WALWORTH, LONDON.

To be had of the usual Houses.

"FOR THE BLOOD IS THE LIFE."

CLARKE'S WORLD FAMED BLOOD MIXTURE

The Great BLOOD PURIFIER and RESTORER.

(Registered Trade Mark—"BLOOD MIXTURE.")

The Celebrated CURE FOR Scrofula, Scurvy, Blood and Skin Diseases, and Sores of all kinds.

Wholesale of all the Wholesale Houses, at 24s. and 108s. per dozen, less the usual discount.

SOLE PROPRIETOR, F. J. CLARKE, CHEMIST, LINCOLN, ENGLAND.

Counter Bills and Posters, with Name and Address, also Show Cards, on application. Printed matter supplied in any Language for Foreign Agents.
CAUTION.—Mr. CLARKE will take immediate proceedings against all persons pirating his Trade Mark, "Blood Mixture," Labels, Wrappers, or Advertisements, or in any way infringing his rights.

WHO WOULD HAVE THOUGHT IT!

Between thirty and forty years ago a Medicine was introduced to the public, and suffering humanity was invited to try the same.

The Proprietor knew from experience that success was certain, but the human breast is so imbued with prejudice, that it forms one of the strongest barriers to break down and the greatest enemy to overcome before any headway can be made towards the mansion of success. Truth has often proved itself to be "stranger than fiction," and it is a fact as solid as truth that



TRADE MARK.
No. 1416.

BEECHAM'S PILLS

have now become one of the leading Patent Medicines of the present day. From north to south, and from east to west, they are to be found in the homes of the rich and the poor. All classes of society use them, and they are by thousands declared to be

WORTH A GUINEA A BOX.

For a Weak Stomach, Impaired Digestion, and all Disorders of the Liver, they act like "MAGIC," and a few doses will be found to work wonders on the most important organs in the human machine. They strengthen the whole muscular system, restore the long-lost complexion, bring back the keen edge of appetite, and arouse into action, with the ROSE-BUD of health, the whole physical energy of the human frame. These are "FACTS" admitted by thousands, embracing all classes of Society, and one of the best guarantees to the Nervous and Debilitated is, BEECHAM'S PILLS have the LARGEST SALE of any Patent Medicine in England.

In South Africa BEECHAM'S PILLS have the largest sale of any Patent Medicine ever introduced into that part of the World.

All Patent Medicine Dealers abroad will find BEECHAM'S PILLS one of the most profitable and one of the best selling articles in the Market. The demand for them is regular, and all Foreign Houses who are desirous of getting a First-class Patent Medicine are respectfully requested to get BEECHAM'S PILLS from the leading Wholesale Houses in England (as no business will be done with any Foreign House by the Proprietor direct).

CAUTION.—The Public are requested to notice that the words "BEECHAM'S PILLS, ST. HELENS," are on the Government Stamp affixed to each Box of the Pills; if not on, they are a Forgery.

Prepared only, and Sold Wholesale and Retail, by the Proprietor,

THOMAS BEECHAM,
ST. HELENS, LANCASHIRE, ENGLAND.

In Boxes, 1s. 1½d. and 2s. 9d. each.

N.B.—FULL DIRECTIONS ARE GIVEN WITH EACH BOX.

A CERTAIN CURE FOR DEAFNESS.

By this valuable "Specific" hundreds have been cured of this distressing malady. For Cold in the Head with Noises in the Ear, it is most efficacious. The highest testimonials are enclosed, with directions for use with each bottle

OSBORNE'S GOLDEN DROPS FOR DEAFNESS.



The highest Testimonials are enclosed, with directions for use with each bottle.

Extract from "Brief."—"GOLDEN DROPS FOR DEAFNESS.—E. M. Osborne has produced a valuable specific for this distressing complaint. We have tested its efficacy, and can, with confidence, recommend it to the public as an excellent remedy. It is perfectly harmless, and the directions for use are plain and simple. It is secured by a registered trade mark, 'Human Ear', by which the genuine article may be recognised."

TESTIMONIALS.

"EDGBASTON, MAY 4, 1877.—Sir,—My niece, who came to stay at my house, was suffering from Deafness and difficulty of breathing, owing to weakness of the tonsils caused by Quinsy. She tried your wonderful 'Specific,' and after applying it a little more than a week her hearing and breathing were quite restored. I am glad to communicate this as the medium of personal thanks and for the good of others,—Yours truly, C. L."

"CLAPHAM, SEPT. 5, 1877.—Sir,—Be so good as to send me six bottles of your 'Cure for Deafness,' and you will oblige. I am much better. Shall I go on with it? Be so good as to let me know. It has done me more good than physicians to whom I have paid twenty guineas; they cannot do me any good.—Yours, &c., J. P."

"CRYSTAL PALACE ROAD, EAST DULWICH, JUNE 10, 1878.—Sir,—During the last few weeks my little girl has been quite deaf, and suffering considerable pain in her left ear. I was recommended to use your 'Golden Drops for Deafness,' and I am delighted to say that, after applying them three times, they brought away two large secretions of foul matter. The child can now hear distinctly the faintest sounds, and is free from pain. I send you this testimonial unasked, in the hope that its publication may increase the sale of your truly valuable 'Golden Drops.'—Yours respectfully, I. H. S. N.B.—If you will send me some testimonial sheets I will distribute them amongst my friends."

Sold by all Wholesale and Retail Chemists, price 1s. 1½d., 2s., 2s. 9d., and 5s. 6d.; or free by post for 1½d. extra from

E. M. OSBORNE, 26 THAVIES INN, HOLBORN CIRCUS, LONDON.

Wholesale and Export Agents—EVANS, SONS & CO., London; and EVANS, LESCHER & WEBB, London

TOWLE'S CHLORODYNE

The Original Preparation, as approved by the Medical Profession on account of its known composition and uniform strength.

Retail at 13½d. 2s. 9d., and 4s. 6d. Dispensing, 4 ozs., 4s. 6d., and 10 ozs., 11s stamped.

LIQ. CHLORODYNII

As originally introduced by A. P. Towle, and free from stamp duty for dispensing.

4 ozs., 4s.; ½ lb., 5s. 6d.; 1 lb., 10s.

TOWLE'S CHLORODYNE LOZENGES AND JUJUBES

In 1, 2, and 4 lb. Bottles, at 3s. per lb., and 6d. and 1s. Boxes. Foiled, Lined and neatly got up for the counter, 4s. 6d. and 9s. per do

**A. P. TOWLE, Chlorodyne Manufacturer,
75 BACK PICCADILLY, MANCHESTER.**

Bills with name on application with instructions for forwarding.

BULLOCK'S PEPSINA PORCI.

Dose, 2 grains to 4 grains.

The experiments of Drs. PAVY, SIEVEKING, and Professor TUSON demonstrated that the Pepsine manufactured by BULLOCK & CO. (Dr. Beale's Process) possessed far greater digestive power than that of any known maker, either English or Continental.

In Small Bottles for Retail, and in Bulk.

BULLOCK'S ACID GLYCERINE OF PEPSINE.

Dose, 1 drachm to 2 drachms.

This Preparation may be prescribed, in the form of Mixture, with most substances compatible with Acids.

In 4 oz., 8 oz., and 16-oz. Bottles, and in Bulk.

BULLOCK'S PEPSINE WINE.

Dose, 1 drachm to 2 drachms. In 4 oz., 8 oz., and 16-oz. Bottles, and in Bulk.

PEPSINE PILLS, PEPSINE LOZENGES, PEPSINE AND CHARCOAL LOZENGES.

L. BULLOCK & CO., 3 Hanover Street, Hanover Square, LONDON.

PRECIPITATED SULPHUR, B.P.,

SOFT, PURE, AND SUPERIOR COLOUR,

MANUFACTURED BY DUNN & COMPY.

(LATE OF PRINCES SQUARE, FINSBURY),

MANUFACTURING CHEMISTS,

STIRLING CHEMICAL WORKS,
WEST HAM, E.

SYMES & CO.,

PHARMACEUTICAL CHEMISTS,

LIVERPOOL,

EXPORT DRUG MERCHANTS.

Importers of

Brazilian Drugs, American and Continental Specialities.

Manufacturers of

OL. LAVAND. RECT.

Now largely used as a substitute for the Mitcham Oil, 21s. a lb.

LAC BISMUTHI ET
CERII.

LAC BISMUTHI

PEPSINE ELIXIR.

HYDROBROMIC SYRUP OF THE HYPOPHOSPHITES.

Anroba, Caroba, Baycuru, Jaborandi, Eucalyptus, Bolelo, Coca, Rhamnus
Frangula, Guaco and Preparations, obtainable through the
Wholesale Houses; from

SYMES & CO., LIVERPOOL;

Or at their Depot—8 SNOW HILL, LONDON.

TIC-SANO

Will always give Instant Relief in RHEUMATISM, NEURALGIA, GOUT, SCIATIC, LUMBAGO, NERVOUS and SICK HEADACHES, and like Disorders,

And will effect a cure in a very short time. In chronic cases of many years' standing it has, when taken regularly, effected a complete cure, even in persons of advanced age, when the case had been pronounced hopeless.

A LONDON M.D. writes:—"The value of TIC-SANO is greatly enhanced by its leaving no ill effects, no stomach derangement, and no headache."

"An undoubted remedy."—*Civil Service Gazette*.

"A remedy of a most efficacious and invaluable kind."—*Morning Post*.

"Thoroughly efficacious, and what is more, harmless in its action."—*Court Journal*.

"A most wonderful and sure cure."—*Morning Advertiser*.

READ THIS MEDICAL TESTIMONY AS TO ITS EFFICACY

From H. A. ALLBUTT, Esq., L.R.C.P.Ed., &c., Physician to the Leeds Dispensary for Diseases of the Skin.

"Although I have, as a rule, a very great objection to all secret nostrums, still, for once, I must award due praise to a medicine which comes under that category. I find your TIC-SANO to be a very valuable remedy in Neuralgia and Rheumatic pains. I also find it most successful in many painful Menstrual disorders, especially in Dysmenorrhœa. I quite agree with Dr. Pease that you will ere long make known to the medical profession the formula, &c."

From J. L. CROMBIE, Esq., M.D., Berwick.

"I have now given your TIC-SANO a fair trial, and am satisfied that it is a most valuable remedy in all cases of a neural nature, and one that I should not like to be without, as these complaints are very prevalent in this neighbourhood."

A few drops of TIC-SANO taken at intervals will keep the blood pure, and will speedily remove any depression often accompanying these painful maladies.

THROUGH ALL THE WHOLESALE HOUSES. BEWARE OF WORTHLESS IMITATIONS.

SEND FOR COPIES OF TESTIMONIALS AND PRESS OPINIONS TO

JOYCE & CO., 25 OLD JEWRY, LONDON, E.C.

J. ROBBINS & CO.

METHYLENE
(BICHLORIDE).

Discovered to be a general Anæsthetic by Dr. RICHARDSON in 1867.

1-lb. Bottles, 16s.; 8-oz., 8s. 6d.; 4-oz., 4s. 6d.; 2-oz., 2s. 6d.

COMPOUND ANÆSTHETIC ETHER,
For producing Local Anæsthesia.

In 4-oz., 10-oz., and 20-oz. Stopped Bottles, 2s., 4s., and 7s.

OZONIC ETHER.
In 4-oz. and 16-oz. Stopped Bottles, 3s. 6d. and 12s.

PEROXIDE OF HYDROGEN.
First introduced as a Medicine by Dr. RICHARDSON.

ETHYLATE of SODIUM
(Dr. RICHARDSON'S Formula), for removing Nævi, &c. In 1-oz. and 1-lb. Bottles, with elongated Stoppers for applying the Caustic, 2s. 6d. and 4s.

STYPTIC COLLOID.
For promoting the Healing of Wounds by the first intention. In 2-oz. and 4-oz. Bottles, with brush, 2s. 6d. and 4s. 6d.; 16-oz., 12s.

CHARCOAL CAPSULES,
Containing pure Vegetable Ivory Charcoal. In Boxes, 2s. 6d. each.

OXFORD ST. 372

EVANS'S EXTRACT OF MALT.

Strongly Recommended in Asthma, Bronchitis, Consumption, Atrophy, Indigestion, and in Stomach Coughs.

(Vide Report of Professor Atfield, Ph.D., F.C.S., Professor of Chemistry to the Phar. Soc. of Great Britain.)

Nov., 1872.—"EVANS'S EXTRACT is incomparably more valuable than any preparation of Malt hitherto offered to the public."

EVANS'S EXTRACT OF MALT LOZENGES.

Colourless Tincture of Iodine (or Carbolate of Iodine).

The only colourless preparation of Iodine, not decolorised by an Alkali. In the form of Gargles and Lotions, and in all cases in which Iodine is prescribed, this preparation is applicable, and may be used freely without the least discoloration.

Circulars of these Preparations may be had on application.

JOHN EVANS, Chemist to H.R.H. the Prince of Wales, &c.,
49 Dawson Street, Dublin, Ireland.

AGENTS, U.S.A.—WYETH & BROTHER, PHILADELPHIA.

Sold by all Chemists and Patent Medicine Vendors.



SAVED BY A PINCH OF SNUFF.

Dear Sir,—I had Tic or Neuralgia in my head for about six weeks, and was as near out of my mind as possible—so far that I was determined to put an end to my existence. A friend who has been nearly as bad as myself, and was cured with your Snuff, told me of it. I came to you with great prejudice; but, marvellous to say, I was cured in less than ten minutes; and there is no sign of it returning, and that is two months.

I am, yours faithfully,

Newcastle-on-Tyne.

J. W. A. MARCH

HANDYSIDES' ELECTRIC NERVINE SNUFF

TIC, TOOTHACHE, NEURALGIA, RHEUMATISM, and PAINS IN THE HEAD

IN TWO MINUTES

Wholesale Agents: W. Edwards & Son; S. Maw, Son & Thorpe; W. Sutton & Co.; Sanger & Sons; J. Thompson, New North Road; Roberts & Co.; F. Newbery & Sons; Barclay & Sons; R. Millard; Butler & Crisp; and Evans, Son & Lescher. Retail by all Chemists and Patent Medicine Dealers in town and country.

LINT.

THE ORIGINAL TAYLOR'S PATENT SUPER A1 FLAX LINT

(INVENTED 1850).

This LINT, unequalled by any other, has been before the Public for about Thirty Years, during which time it has been most extensively used in the British Army and Navy, in a large number of British and Foreign Hospitals, and by the Medical Profession generally. Its Advantages are, that being made from fine Flax Fibre it is perfectly free from all impurities, and, for Surgical purposes especially, is infinitely superior to Lint made from any other material.

Manufactured by W. G. TAYLOR, Charford Mill, BROMSGROVE.

REPRESENTATIVES—

Messrs. S. MAW, SON & THOMPSON,
7 TO 12 ALDERSGATE STREET, LONDON.

N.B.—Samples and Prices forwarded at once on application.

Taylor's Super A1 Flax Lint,
3s. 8d. per lb.

Maw's Surgeons' Lint,
2s. per lb.

Maw's Hospital Lint, 1s. 9d.
per lb.

SPECIAL QUOTATIONS BY THE CWT.

S. MAW, SON & THOMPSON, LONDON.



TRUSSES.

LINDSEY & SONS,

32 LUDGATE HILL, & 40 GRACECHURCH ST., E.C., LONDON

ESTABLISHED 50 YEARS.

Wholesale and Foreign buyers will do well before ordering to see our Export Price Lists, mailed free any address. Best quality guaranteed, and utmost care in execution of orders, with promptitude.

PRICES OF PLAIN PRINCIPLE TRUSSES, from 16s. per doz. SINGLE; DOUBLE, 20s.

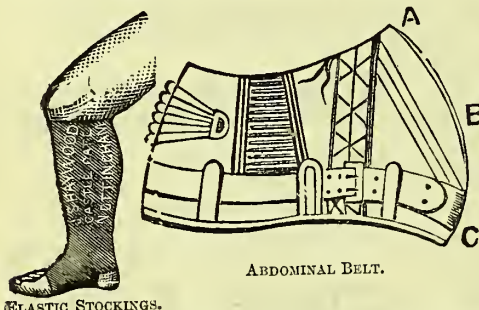
Salmon & Ody's, Moc Main, Cole's expired Patents, and every other description of Trusses.

Patentees of **LINDSEY'S PATENT TRUSS**, without STEEL SPRING.

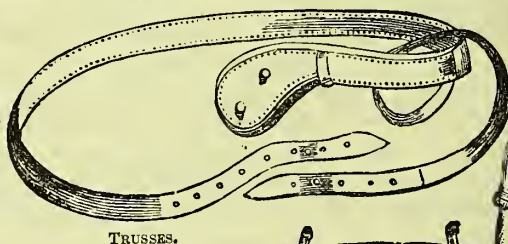
EASY, EFFECTIVE, IMPERCEPTIBLE WHEN ON.

RETAIL PRICE, each, 15/6, 21/6, 26/6, 31/6. A Large Discount to the Trade. Full description post free.

HAYWOOD'S SURGICAL APPLIANCES.



ABDOMINAL BELT.



TRUSSES.



SUSPENSORY BANDAGES.



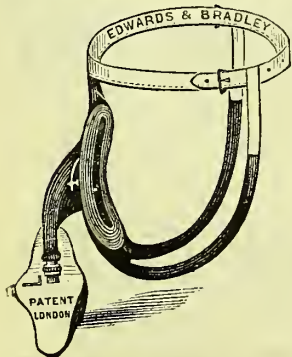
LADIES' AND GENTS' CHEST-EXPANDING BRACES.

LIST OF PRICES AND DIRECTIONS FOR MEASUREMENT FORWARDED ON APPLICATION.

Greatest attention paid to Special Orders, which are invariably forwarded per return of post.

J. S. HAYWOOD, Castle Gate, NOTTINGHAM.

EDWARDS & BRADLEY'S NEW PATENT BED CONVENIENCE.



As there has been nothing whatever made for the purpose of patients suffering from incontinence of urine, the present invention has proved to be a boon to thousands of sufferers, and is a thing that is in great demand.

CIRCULARS ON APPLICATION.

See "BRITISH MEDICAL JOURNAL," January 17th, 1880.

PRICE—FEMALE, 31/6; MALE, 27/-, LESS 30 PER CENT.

INDIA RUBBER BANDAGES

(OF THE FINEST SELECTED PARA RUBBER), AS SUGGESTED BY DR. HY. MARTIN, F.R.S.

3 feet	5½ feet	7½ feet	10½ feet	15 feet	21 feet
13/6	17/6	26/6	34/-	46/-	67/- per doz.

Less 2½ per cent.

Manufacturers of all kinds of Railway Urinals, Pessaries, &c., &c.

EDWARDS & BRADLEY, Patentees and Manufacturers,
266 SOUTH LAMBETH ROAD, LONDON.

ESTABLISHED 1840.

JAMES WOOD & DREWRY,**SURGICAL BELT & BANDAGE MAKERS,**

Manufacturers of the Oxford Suspender on Scientific Principles, the Registered Ladies' Supporting Belts, the Gentlemen's Improved Belts for all Climates, Infants' Umbilical Belts and Stays,

THE IMPROVED EYE SHALES, LADIES' AND GENTLEMEN'S CHEST-EXPANDING BRACES.

**SUSPENSORY BANDAGES.**

Twill Bags and Bands, with Tapes to contract Bags .. 5/0 per doz
 White Net, Web Bands, Tapes to contract Bags .. 6/0 "
 Pink Net, Twill Bands, Tapes to contract Bags .. 7/0 "
 Understraps or Elastic Insertions to 1, 2, 3, 1/6 per doz, extra)
 Lowering Suspenders are specially adapted for Riding and Hunting, Bicycle
 Cotton Net, to button on Sateen Band, with Understraps, 17/6 p. d. z
 Silk ditto ditto ditto 20/0 "
 Ditto ditto ditto with Silk Elastic .. 25/0 "
 Understraps to button on Band 25/0 "

No. 3. Silk Net, Fancy Front, Silk Ties to contract Bag, and
 Silk Fittings .. 12/0 per doz.
 No. 4. Silk Net, Fancy Front, Silk Ties to contract Bag,
 Silk Fittings, and Silk Elastic Insertions .. 15/0 "
 Riders, and Warm Climates. The Bag can be raised or lowered by Buttons, &c.
 No. 8. Silk Net, Silk Elastic Waistband, Silk Elastic Understraps
 to button on Band, supported by Silk Elastic .. 30/0 "
 This is specially adapted for India, &c., &c It gives great support, and
 is very light in weight (under 1 oz.).

Discount 10 per cent. for 1 gross; 15 per cent. for 2 gross or more of any one No.

N.B.—NONE GENUINE WITHOUT OUR TRADE MARK.

To be had from any Wholesale House. Wholesale only from JAMES WOOD & DREWRY, 29 Paternoster Sq., Newgate St., E.C.

TRADE
 SALMON'S ODY & CO., 292 Strand, LONDON.
 PATENT. PATENT TRUSS MANUFACTURERS.

TRADE
 SALMON'S
 PATENT.
 MARK.



FIG. 1. Patent Single.

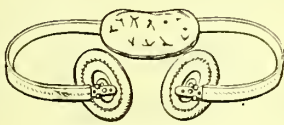


FIG. 2. Patent Double.

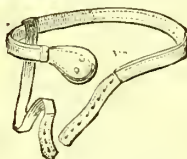


FIG. 3. Common Single.

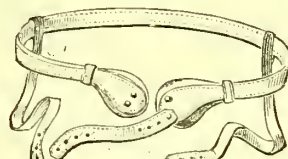


FIG. 4. Common Double.

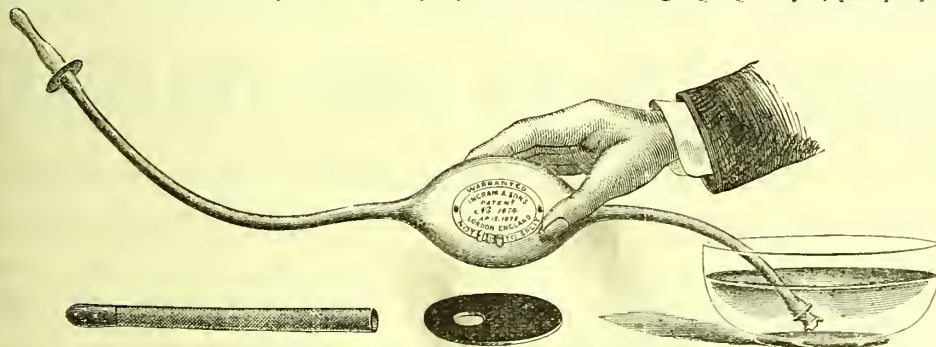
NETT PRICES, 1880.

Pat. Self-Adjusting Trusses, Basil and Chamois, per doz (Fig. 1), single	£1 10 0	Common Circular Trusses, Basil and Chamois .. per doz. (Fig. 3), single	£0 18 0
Ditto Basil and Mole-skin	1 18 0	Ditto ditto Basil and Mole-skin	1 4 0
Ditto Roan and Skiver, Silk Sewn	2 6 0	Ditto ditto Basil and Chamois	1 10 0
Ditto Basil and Chamois (Fig. 2), double	3 0 0	Ditto ditto Basil and Mole-skin	1 18 0
Ditto Basil and Mole-skin	3 16 0	Serotal Trusses, Basil and Chamois or Mole-skin	each, single 0 3 6
Ditto Roan and Skiver, Silk Sewn	4 16 0	Ditto ditto	double 0 7 0

Customers are requested to note that the Self-Adjusting Trusses, of which we are the Patentees and Manufacturers, are Stamped on Spring and Plates with our Trade Mark as above, without which none are GENUINE.

INGRAM'S IMPROVED ENEMA APPARATUS

By Royal Letters Patent.

MADE IN ONE CONTINUOUS PIECE.**WARRANTED NOT TO SPLIT.**

The following are the advantages we claim for our invention:—

- 1st. A complete Enema and Syringe Apparatus, without any metallic connections or wire fastenings whatever, thereby avoiding the possibility of leakage.
- 2nd. Specially prepared to resist the heat in tropical countries.
- 3rd. A perfect apparatus: will not split, become hard, or sticky.

Invented in America, No. 212,939, March 4th, 1879, and in France, No. 126,909, October 11th, 1878.

TO BE OBTAINED OF ALL

CHEMISTS, DRUGGISTS, SURGICAL INSTRUMENT MAKERS, and DRUGGISTS' SUNDRIESMEN.

GRADUATED GLASS MEASURES.

S. MAW, SON & THOMPSON are now prepared to execute orders for Graduated Glass Measures of best quality, bearing the Government Verification Mark, at an advance of 6d. each on quotations in their Quarterly Price Current.

S. MAW, SON & THOMPSON, 7 to 12 Aldersgate St., LONDON.

KILNER BROTHERS, GLASS BOTTLE MANUFACTURERS

THORNHILL LEES, NEAR DEWSBURY, AND CONISBORO', NEAR ROTHERHAM,
YORKSHIRE.

LONDON OFFICES AND WAREHOUSES:

No. 3 GT. NORTHERN GOODS STATION, KING'S CROSS, N

PRIZE MEDALS: LONDON, 1862; PARIS, 1875 & 1878; PHILADELPHIA, 1876.

GLASS MEASURES.

WILLIAM TOOGOOD, MANUFACTURER OF THE STANDARDS

Is now supplying Measures Graduated in accordance with the Weights and Measures Act, 1878, and duly Verified and STAMPED, at the following rates

1 drm.	2 drm.	4 drm.	1 oz.	2 oz.	3 oz.	4 oz.	6 oz.	8 oz.	10 oz.	16 oz.	20 oz.	40 oz.
12/	13/	14/	12/	13/6	15/	16/	18/6	21/	23/	26/	30/	42/ 03.

GLASS MEASURES, GRADUATED AS ABOVE, BUT OF EXTRA WEIGHT AND SUPERIOR QUALITY												21/	24/	26/	33/	36/	54/ 03.
--	--	--	--	--	--	--	--	--	--	--	--	-----	-----	-----	-----	-----	---------

WEIGHTS Verified and Stamped as required by the Act.

The Set of 7 Grain Weights, 6d. pr. set. The Set of 6 Scruple & Drachm Weights, 1s. pr. t.

36 & 37 Mount Street, Grosvenor Square, London, W.

An ILLUSTRATED CATALOGUE of Glass Bottles, Earthenware, Sundries, &c., forwarded on application.

Special Quotations for Bottles for Proprietary Articles, Perfumes, &c.

The General Mineral Waters Supply Association (Limited).

CAPITAL £20,000,

In 20,000 shares of £1 each, with power to increase.

5s. on Application; 5s. on Allotment; the remainder in two calls of 5s., Three Months' Notice to be given of each call.

THE FIRST ISSUE OF 10,000 SHARES WILL CLOSE ON WEDNESDAY, JUNE 30th.

Incorporated with Limited Liability, under the Companies Acts of 1862, 1867, and 1877, whereby the liability of Shareholders is strictly limited to the actual amount of their respective Shares.

DIRECTORS:—

The Subscribers to the Memorandum of Association are the Directors until others are appointed, which will be done at their next Meeting.

MANAGING DIRECTOR:—THEODORE ROBERT ANCELL, Chemist.

SOLICITOR: E CARTWRIGHT STEAVENSON, Esq., 72 and 73 Gracechurch Street, E.C.

SECRETARY (pro. tem.):—HERBERT FORGE, Esq.

OFFICES:—MANSION HOUSE BUILDINGS, 4 Queen Victoria Street, E.C.

ABRIDGED PROSPECTUS:—

THIS Association is formed for the purpose of manufacturing pure Aerated and Mineral Waters of guaranteed strength and quality, and supplying them on the cash co-operative principle at greatly reduced prices.

It is intended to at once fit up a factory with the most improved machinery; silver-lined cylinders and glass plungers will be used, to prevent metallic contamination. A perfect system of filtration will be adopted, the Waters will be manufactured of specific strength, which will be stated on the labels; and every care will be taken to insure cleanliness. The cost of plant, complete, capable of manufacturing 500 gross per week, will not exceed £1,000.

The factory will be under the direction of Mr. Theodore R. Ansell, Chemist (Promoter and late Managing Director of the Chemists' Aerated and Mineral Waters Association, Limited), the Waters manufactured by which Company under his management have given universal satisfaction, and have been highly commended both by the *Lancet* and *Medical Times and Gazette*. Shareholders in this Company will therefore be able to obtain Waters of the same quality supplied by the Chemists' Association, at prices that will enable them to compete with local manufacturers.

Soda, Seltzer, Potash, and Carbonated Waters will be charged 1s. 3d. per dozen; Lemonade, Ginger Ale, Lime Juice, &c., 1s. 6d. per dozen. Lithia, and other medicinal waters, 2s. per dozen, but a deduction of 2s. per gross will be made to Shareholders holding one share, 3s. per gross to those holding five shares, 4s. per gross to those holding 10 Shares. The Waters will be packed in bin cases. Bottles will be charged and allowed for at the rate of 1s. 6d. per dozen, and cases (3 dozen) 4s. each. Cash will be returned for empties. The Waters will be bottled in plain bottles, and supplied, if required, with plain labels or without labels.

Shares in Co-operative Associations are amongst the most remunerative investments of the day. The principle of co-operation applied to this business must prove profitable, as the usual heavy expenses in obtaining orders and delivery are not incurred. The Directors therefore feel that they can recommend this Company's Shares as a safe and lucrative investment, and they trust to be in a position to commence supplying in July, when they have every confidence in being well supported in carrying out the object of the Association, which is to supply high-class Waters of absolute purity at such low prices as Co-operation alone can render possible.

By the Articles of Association, Theodore Robert Ansell is to be Managing Director of the Company, and is to be paid £300 a year, which is to be increased at the rate of £50 per annum for every five per cent. dividend declared, and his services in promoting the Company is to receive 250 fully paid up shares when a dividend of ten per cent. is declared, and 250 more fully paid up shares when a dividend of fifteen per cent. is declared.

The Memorandum and Articles of Association may be seen at the Company's Offices. Cheques and Post Office orders to be crossed London and South Western Bank, and made payable to the Secretary.

If no allotment is made, the deposit money will be returned in full.

Full Prospectuses forwarded on application. The Preliminary Expenses do not exceed £50.

FORM OF APPLICATION FOR SHARES.

TO THE DIRECTORS OF THE

GENERAL MINERAL WATERS SUPPLY ASSOCIATION (Limited).

GENTLEMEN,—I beg to enclose you the sum of being a Deposit of 5s. Share on Shares in the GENERAL MINERAL WATERS SUPPLY ASSOCIATION, LIMITED, and I request you to allot me that number, and I hereby agree to accept the same, or less number that may be allotted to me.

Name in full.....
Address.....
Profession or Occupation.....
Date.....18

SODA WATER MACHINERY

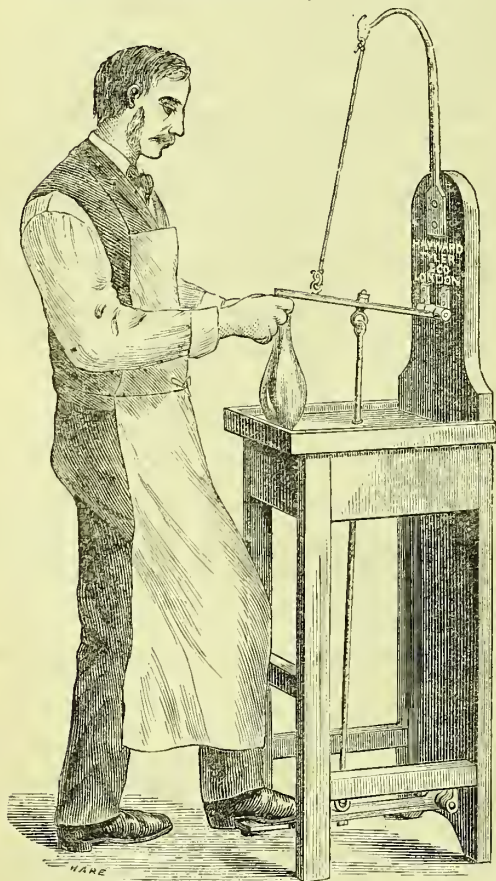
IN ALL ITS BRANCHES.

Many of H. T. & Co.'s Machines have been in constant use for over 40 years, testifying to the durability of their workmanship.

ESTABLISHED 1815.

GOLD MEDAL

AT PARIS, 1878.



WIRING MACHINE.

HAYWARD TYLER & CO.

84, 85 WHITECROSS STREET, LONDON.

Caution

W. A. ROSS, the Original Patentee and Maker of The Celebrated Belfast Ginger Ale, cautions the Public that the "GENUINE" can only be had at

Ross's Royal Ginger Ale
AND
Aerated Water Works Belfast.

NAME ON CORK, CAPSULE, AND LABEL REGISTERED.

EXPORT ORDERS HAVE SPECIAL ATTENTION.

BINGLEY'S



ANALYSED

SODA WATER.
SELTZER.
POTASH.
LEMONADE.
LITHIA, &c.

MANUFACTURED BY

JOHN BINGLEY, Pharmaceutical Chemist,
NORTHAMPTON.

A copy of Professor Attfield's Report will be forwarded by post on application.

SYPHONS.

GOLD MEDAL,

PARIS, 1878.

MONDOLLOT'S

Are the most Perfect in Shape and Finish; Tops of Pure Block Tin; Glass of the Finest Description.

WRITE FOR PRICES AND PARTICULARS TO
13 Little James Street, Bedford Row
LONDON.

SILICATED CARBON FILTERS



Prize Medals—PARIS, 1867. HAVRE, 1869.

ADOPTED, IN PREFERENCE TO ALL OTHERS, by the Admiralty, and used in the General Post Office, the London & Provincial Hospitals, and many Public Establishments in various parts of the World.

SILICATED CARBON FILTER COMPANY

CHURCH ROAD, BATTERSEA, LONDON.

JEWSBURY & BROWN'S MANCHESTER MINERAL WATERS,

**PURE SODA, SELTZER, POTASH, LITHIA, &c.,
LEMONADE,
GINGER ALE, AND QUININE TONIC.**

Prepared and Bottled specially for Export, and warranted to keep well.

Manufactured with the utmost care and by improved machinery, these productions are recommended for **purity and excellence of quality** by many leading members of the Medical Profession, and have for many years had a preference by the public; the flavour of the **Lemonade and Ginger Ale** being procured from the **fresh Fruit and Finest Jamaica Ginger**, they may be relied upon as furnishing delicious and satisfactory beverages, either for general use or specially for invalids.

The **Soda Water** is absolutely free from any metallic impregnation, and being by improved machinery highly charged with Carbonic Acid Gas, and each bottle containing a definite and unvarying proportion of **Pure Carbonate of Soda**, J. & B. have every confidence in inviting a trial from those who have not already patronised them.

The **Seltzer, Potash, and Lithia Waters** are prepared with the utmost exactitude and the purest ingredients.

The **New Quinine Tonic** furnishes a pleasant form for the administration of a most valuable restorative, and is refreshing and agreeable.

Ginger Ale (Aromatic) of superior quality, and strongly recommended as a Non-Alcoholic and warm stimulant beverage.

N.B.—Every Bottle is protected by a distinctive Label, with Name and Trade Mark, and each Cork is branded.

Counter Bills and Analytical Reports, with Agents' Names and Addresses, supplied when requested.

JEWSBURY & BROWN, 44 Downing Street, 3 Grosvenor Street, and 113 Market Street, MANCHESTER.

FOREIGN MINERAL WATERS.

FOREIGN LIQUEURS.

FOREIGN WINES.

FOREIGN SPIRITS OF EVERY DESCRIPTION.

ANGOSTURA BITTERS.

APPLY TO

**AMES SMITH & COMPANY, IMPORTERS,
LIVERPOOL: 9 LORD STREET.**

G. COLE, PACKING CASE MAKER.

Boxes and Cases supplied to

MINERAL WATER MANUFACTURERS

Using Patent or Ordinary Bottles.

632 ROTHERHITHE ST. (late Trinity St.), ROTHERHITHE, S.E.

was awarded to Jewsbury & Brown at the Exhibition of Sanitary Appliances, at Owens College, Manchester, on the occasion of the Meeting of the British Medical Association, August, 1877.

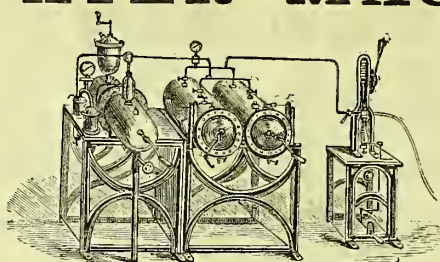
A CERTIFICATE OF MERIT awarded by the British Sanitary Institute of Great Britain, after a deferred PRACTICAL TRIAL AND EXAMINATION, July 4th, 1879.

SODA-WATER MACHINERY.

PATENT NOZZLE



FITS ANY BOTTLE.



CONE STOPPER.



BALL STOPPER.



SODA WATER MACHINE COMPLETE, WITH RACK.

DAVENPORT'S NOZZLE AND STOPPER is the best Patent for utilising old Bottles, and converting them into Patents. No Corks or Wire, and saving entire cost in one season. The New Nickel-plated Nozzle makes this the most attractive Patent in use. Trial allowed. Prices lowered. Send for Samples. New Bottles ready fitted for use now supplied. Catalogues of Soda-Water Machines, Ice-Making Machines, Engines, Boilers, Copper Cylinders, Syphons, Seltzogenes, Filters, &c., and all accessories to the Soda-Water Trade.

AGENTS FOR HAYWARD TYLER & CO.'S SODA-WATER MACHINERY.

" " BARRETT & ELLERS' Patent Stoppers in Lamont's Bottles.

Illustrated Catalogues, of sixty-four pages, post free to all parts of the World.

DAVENPORT & CO., Soda-Water Machinists and General Machinery Agents,
99N HIGH HOLBORN, LONDON.

MONDOLLOT & CO., L.D.

BEFORE PURCHASING YOUR

SODA WATER MACHINERY

GOLD MEDAL.

Write for Mondolot's CATALOGUE, which will be sent post free on application.

PARIS, 1878.

13 LITTLE JAMES STREET, BEDFORD ROW, LONDON, W.C.

Natural Mineral Waters of "Apollinaris," "Hunyadi Janos," Vals

Vichy, Carlsbad, Seltzer, Kissingen, Homburg, Pullna, Friedrichshall, &c., direct from the Springs.

Also the **ARTIFICIAL MINERAL WATERS** prepared by Dr. STRUVE & CO., at the Royal German Spa, Brighton and R. ELLIS & SON, Ruthin.

Appointed Agents for the celebrated "APOLLINARIS WATER."

W. BEST & SONS, Foreign Wine, Spirit, and Mineral Water Merchants, 22 Henrietta Street, Cavendish Square, London, W.



LONDON, 1862.



LONDON, 1873-74.



PARIS, 1867-78.



VIENNA, 1873.



PHILADELPHIA, 1876.



CAPE, 1877.

SODA WATER MACHINERY,

And all accessories connected with the business.

HANDSOME MARBLE COUNTER FOUNTAINS,

For dispensing Iced Fruit Drinks.

MACHINES FROM 30 POUNDS.

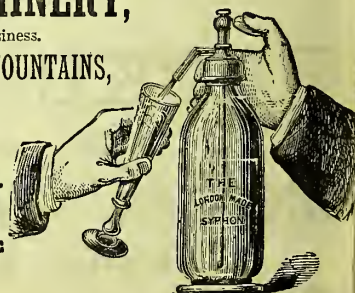
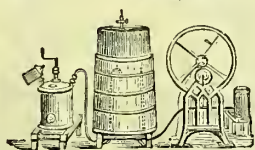
Sole Agents for Codd's Patent Globe-Stoppered Soda Water Bottles.

In use by over 500 established Soda Water Makers in England alone.

**SOLE MAKERS OF THE IMPROVED LONDON-MADE
SYPHON, 2s. each in quantities.**

CATALOGUE FORWARDED FREE.

THE "LONDON-MADE" SYPHON.

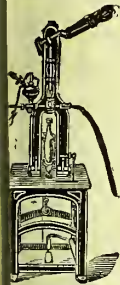


BARNETT & FOSTER, 23T Forston Street, Shepherdess Walk, City Road, London,



GOLD MEDAL SODA WATER MACHINERY.

Awarded Grand Medal of Progress
at Vienna, 1873.



Seven First-class
Medals awarded at
various International
Exhibitions over
and above all other
Machinery of the kind
since 1862.

Soda Water made at a
minimum cost by using
these Machines.

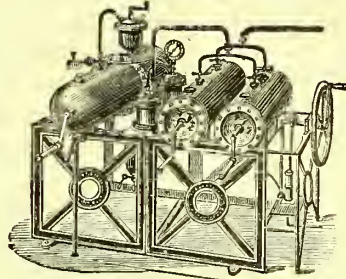
No Steam Power wanted.

Entire Saving of Coals.

Half the usual Labour.

Saves Breakage of Bottles.

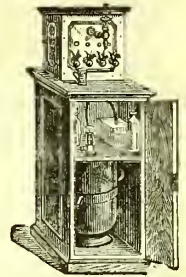
Simple in Construction.



TRADE MARK.
Generator and Bottling Cylinders.

Agents for Lamont's
Patent Bottles, and
Vaass & Littman's Ice
Making Machines.

Sole Agents for
Galloway's "Excelsior"
Soda Water Machine,
with Steam Engine com-
bined, and "Universal"
Double Pump Machine,
Guaranteed to Make
40,000 Bottles per Day;
also all other Specialties
made by this celebrated
House.



Cabinet Machine.

Cost of Machines Saved in one Season in Broken Bottles alone.

The undersigned are the only Manufacturers in Europe of the Improved
Machines for Making, Bottling, and Drawing on Draught Aërated or
Natural Waters.

These Machines are lined with pure tin, the pipes are of pure tin, and
every care is taken to make them as perfect as possible. For convenience,
saving of time and labour, these Machines are not excelled; there-
fore, for Makers of Soda Water, Lemonade, Ginger Ale, Seltzer, Potass,
&c., and other Waters, they are invaluable.

Before purchasing send for Catalogue of 104 pages, post free, giving
illustrations and prices.

NOTICE.—The Trade and all others are notified that no one has autho-
rity from us to manufacture any of our specialties; and anyone pretending
to have such, and manufacturing the same, will be dealt with according to
law. All are therefore safe only by dealing with the original Inventors and
Manufacturers.

DOWS, CLARK & Co., 46 & 47 Frith Street, Soho, LONDON.

In our New Catalogue, just issued, will be found illustrations and descriptions of the various Machines for Making Aërated
Waters and Bottling the same, Marble Machines for the Counter, of various designs and prices, Copper Cylinders and Coolers,
Siphons and Fillers, Ice Safes, Silver-plated Counter Draught Tubes, Tumblers, and Silver-plated Holders, Measuring Taps, Ice
Cream Freezers, Fruit Juices, Extracts for flavouring, and Fruit Syrups, for Export or otherwise. Patent Clamps for Bottles,
Pressure Gauges, the Cabinet Machine for Clubs, Private Families, Messes, &c. Mineral Waters for Export. Bottles, Corks,
Ginger Ale Extract, Gum Extract, for producing foam, Cider Extract, &c., &c.

Lime Juice Cordial and Syrup of the very finest quality.

PATENT SODA WATER BOTTLES.



BARRETT & ELLERS,

9 DACRE STREET, WESTMINSTER, LONDON, S.W.

We are bringing out some

NEW BOTTLES

AND

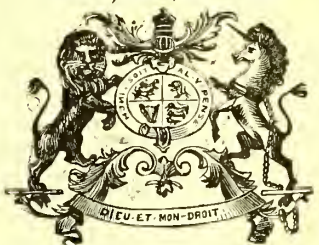
STOPPERS

FOR THE APPROACHING SEASON,
MUCH CHEAPER,

And with great Improvements on existing Patents.

Before giving your orders, please write for samples.

By Royal Letters Patent, Dated
June 2, 1874, No. 1923.



BARRETT & ELLERS' MILLING MACHINES & SYRUP PUMP COMBINED

Have been proved to be

The Best and Cheapest in the Market, of which now upwards of 1,000 have been Sold.

IMPORTANT NOTICE.

Should the Bottles break, the Stoppers may be newly fitted up and used again in fresh Bottles, thereby being a
saving and advantage over some other Patents.

VALLET'S PATENT.

Fig. 1.



Fig. 3.



New Stopper.

The Stoppers are made in six different sizes—Nos. 1, 2, 3, 4, 5, and 6. Nos. 4, 5, and 6 are most suitable for general use, the Bottles adapted to which having sufficient capacity in the mouth to allow a copious flow of the liquid, whilst Nos. 1, 2, and 3 are specially made for Bottles which have only a small mouth, thus retarding the flow of the liquid, and causing the evaporation of the carbonic acid gas before the Bottle can be emptied.

ROYALTY FREE.

All Communications to be addressed to

**L. VALLET, 49 Everton Road,
LIVERPOOL.**

Fig. 2.—THE STOPPERED AND FITTED BOTTLE.



EUGENE GERAUT & CO.

**NEW PATENT LEVER
SELTZOGENES.**

For the immediate production of Eau de Vichy, Soda Water, Sparkling Lemonade, Aërated Waters.

First introduced by EUGENE GERAUT & Co. in 1853.

3-pint, wire, 13/; 5-pint, wire, 18/; 8-pint, wire, 30/.
Cane covered, 3-pint, 6d.; 5-pint, 1/; 8-pint, 2/ each extra.
Strongly silver-plated top, 5/ each extra. 3-pint size,
strongly silver-plated, richly decorated porcelain stands,
30/ each; 5-pint size, ditto, 38/ each; 8-pint size,
ditto, 48/ each.

Our well-known Seltzogenes are improved yearly, and have
already stood a public test of upwards of Twenty Years,
and are acknowledged as **THE VERY BEST.**

POWDERS FOR THE ABOVE—Subject—3-pint, per dozen
boxes, 22/; 5-pint, ditto, 36/; 8-pint, ditto, 63/.

LIBERAL DISCOUNT FOR LARGE QUANTITIES.

1 & 2 CORPORATION BUILDINGS, FARRINGTON ROAD, LONDON, E.C.

SYPHONS.

IMPORTANT NOTICE.

Great Reduction in Price.

Clear or coloured glass, pure **ENGLISH BLOCK
TIN TOPS**, with piston or cap.

22/6 per dozen, for quantities of not less
than one gross.

25/ per dozen, for less than one gross.

Packing in Cask, 5/ per gross.

The Name marked on the metals free of charge for
quantities of not less than one gross.

The Name engraved on the glass, 2d. each extra.

1870.



TO THE MINERAL WATER TRADE.

DISCS FOR ALL PATENT BOTTLES.

These are a great convenience, strengthening the Cap Labels, and keeping the lips of the Bottles free from dirt. The following sorts are kept in stock:—

“PLAIN” DISCS,

Size of this Circle, on Stout Boards,
no Printing.

Price—5,000, 8d.; 10,000, 7d.; 25,000,
6d.; 50,000, 5d.; 100,000, 4d.
per 1,000.

“GROTESQUE” DISCS,

Printed on good Cardboard in Blue
Ink; they consist of a great variety of
Amusing Figures.

Price—5,000, 1s.; 10,000, 11d.; 25,000,
10d.; 50,000, 9d.; 100,000, 8d.
per 1,000.

“MOTTO” DISCS,

Printed on Stout Boards in Black Ink;
they consist of an immense variety of
Mottoes and Well-known Sayings.

Price—5,000, 9d.; 10,000, 8d.; 25,000,
7d.; 50,000, 6d.; 100,000, 5d.
per 1,000.

“QUOTATION” DISCS,

Printed on good Cardboard, Lake Ink;
they consist of an immense number of
Quotations from Shakespeare, Byron,
Milton, Burns, &c., &c.

Price—5,000, 1s.; 10,000, 11d.; 25,000,
10d.; 50,000, 9d.; 100,000, 8d.
per 1,000.

**HONESTY
IS THE
BEST POLICY.**

**GIVE US A TASTE.
OF YOUR QUALITY
SHAKESPEARE**

All the above are assorted in Boxes of 5,000, each Box containing an immense assortment. Prices and Samples submitted for all kinds of Labels, and also for Show Cards, Circulars, Price Lists, and all print matter required in the business.

J. B. LAMBE & CO.,

PRINTERS TO THE MINERAL WATER TRADE,

199 UPPER THAMES STREET, LONDON, E.C.

NEW AND IMPORTANT DISCOVERY.

GINGER ALE,
From Pure Jamaica Ginger.

The difficulty of using Ginger in the manufacture of "Ginger Ale," and at the same time having a CLEAR and SPARKLING DRINK, has, after much labour and expense, been thoroughly overcome by

Messrs. HARSTON & CO., of LEEDS, and they are now able to place before the public a BRIGHT and SPARKLING DRINK, made purely from genuine Ginger Root.

TRADE MARK.



TRADE MARK.

Registered Label.]

[Registered Label

HARSTON & CO'S
Ginger Ale, from Pure Jamaica Ginger.
Carries a beautiful creamy head.

HARSTON & CO'S
Ginger Ale, from Pure Jamaica Ginger.
Wholesome and Refreshing.

HARSTON & CO'S
Ginger Ale, A safe Drink for Pall-room or
Cricket-field.

HARSTON & CO'S
Ginger Ale, For railway travelling, driving or
exposure to cold.

HARSTON & CO'S
Ginger Ale, Has wonderful nourishing prop-
erties.

HARSTON & CO'S
Ginger Ale, Restores Circulation; is Warming
and Comforting.

HARSTON & CO'S
Ginger Ale, from Pure Jamaica Ginger.
Is Non-Intoxicating.

HARSTON & CO'S
Ginger Ale, from Pure Jamaica Ginger.

Recommended by the Medical Profession for Consumptive Patients.

"ABSOLUTELY PURE."

SEE ANALYSES. Sent post free on application.

ELLIS'S**RUTHIN**

Soda, Potass,
Seltzer, Lemon-
ade, also Water
without Alkali.
For GOUT,
Lithia Water, &
Lithia &
Potass Water.

WATERS.

WORKS BRANDED "R. ELLIS & SON, RUTHIN," and every
label bears their Trade Mark. Sold everywhere, and wholesale of

ELLIS & SON, RUTHIN, NORTH WALES.

London Agents: W. BEST & SONS, Henrietta St., Cavendish Square.

T. & F. J. TAYLOR'S**AERATED WATERS,***Newport Pagnel.*

ESTABLISHED 1835.

ODA, POTASH, SELTZER, AERATED (without
Alkali), and LITHIA WATERS,
LEMONADE AND GINGER ALE.

Each Bottle is protected by a Label bearing the Signature
of the Firm.

Purity and Excellence of the Water certified by Analysis
by Professor ATTFIELD, Ph.D., F.C.S.

W. J. BUSH & CO.,

Distillers and Importers of

Essential Oils & Fruit Essences,

SPECIALITIES FOR AERATED WATER AND CORDIAL MANUFACTURERS,

ESSENCE LEMON,

EXTRA SUPER QUALITY,

*The only pure Essence imported, made at our Works at Sicily.***ESSENCE GINGER ALE,**

For Winter Drinks.

TONIC ESSENCE,

FOR BITTER WATER.

Soluble Essence Lemon.**SOLUBLE ESSENCE GINGER.**

SOLUBLE ESSENCE OF PEPPERMINT.

BEWARE OF SPURIOUS IMITATIONS.

W. J. B. & Co. caution the Trade against the so-called Soluble Essences now so frequently offered for sale, which are nothing more than mere Tinctures; and although offered at lower prices, cost 5 or 6 times as much in use, whilst imparting a strong medicated flavour. W. J. B. & Co. further beg to inform their friends that Aerated Drinks as Pale Ale, Horehound Beer, &c.—made from their Soluble Essences are exempt from Excise regulations.

*NONE OTHERS ARE GENUINE.***CAUTION.****GUM EXTRACT**

(French Cream),

PROTECTED BY ROYAL LETTERS PATENT,

For producing a Permanent Head of Creamy Richness on
Ginger Beer, Ginger Ale, Lemonade, and other Aerated
Beverages; also on Beers, Ciders, Wines, &c.

**TO MAKERS AND VENDORS OF EFFERVESCING
DRINKS, AND TO THE PUBLIC GENERALLY.**

MESSRS. W. J. BUSH & CO., of Artillery Lane, Bishopsgate, London, Manufacturing Chemists, hereby give notice that they are sole proprietors of the patent for making the above Gum Extract, and of the recipe from which and the process by which the said extract is prepared. Messrs. W. J. Bush & Co. hereby caution all persons against making the said Gum Extract or any imitation thereof. And they also caution all persons from selling or using the said Gum Extract or any imitation thereof other than that made or supplied by them or their authorised agents. The only genuine Gum Extract is that prepared by Messrs. W. J. Bush & Co., 20 to 23 Artillery Lane, Bishopsgate, London, and the Works, Ash Grove, Hackney, and sold in bottles and in tins, price 2s. 6d. per lb., bearing their labels, and issued from their warehouses.

*All persons infringing the above Patent will be
immediately proceeded against.*

W. J. BUSH & CO.,

20-23 Artillery Lane, Bishopsgate, London, E.

ZOEDONE

*A Delicious, Sparkling, Phosphated Iron Beverage.—Non-Alcoholic.—
A Brain and Nerve Tonic, and Nutrient Tonic Beverage.*

RECOMMENDED BY THE FACULTY.

From "The British Medical Journal," August 30, 1879.

Among the various medicinal and other exhibits at the recent meeting of the British Medical Association at Cork, to some of which we shall hereafter direct attention, there was one which, to our own judgment, bore away the palm. We refer to the aerated and phosphated iron beverage which Messrs. Evans & Co. of Wrexham manufacture for David Johnson, Esq., F.C.S., the patentee.

We had ample opportunities of testing its refreshing and invigorating qualities during our sojourn in the fair city of the extreme south-west; and we can confidently recommend it to the attention of physicians and others who are occasionally at a loss what to direct their patients to take when parched by feverish thirst or depressed by exhausting ailments—notably in cases where alcoholic stimulants would be prejudicial. We feel that it would be found exceedingly useful in mitigating the discomfort oftentimes experienced by those suffering from the thirst, loss of appetite, and general *malaise* connected with the last stage of phthisis and chronic bronchitis.

We would also, from our observations and experience, advise its introduction into clubs, taverns, and places of public amusement, where it would judiciously supersede vinous and alcoholic stimulants, seeing that it contains, as its name implies, life-giving ingredients in a form easily assimilated.

Every Chemist that has introduced ZOEDONE has found a large and regularly increasing sale for it. It is put up in Champagne Bottles, and there is no trouble with empties, as the bottles are included in the price. Customers supplied with Pamphlets for distribution; also a special Circular for medical men stating the formulæ.

Orders should be anticipated by one week.

Report on the ZOEDONE of Messrs. Richard Evans & Co., of Wrexham.

The Analytical Sanitary Institution, 54 Holborn Viaduct, London, E.C., Sept. 21, 1878.

I have carefully examined the new Aerated Mineral Water manufactured by Messrs. R. Evans & Co., and to which they have given the name of "ZOEDONE." I find the statements made respecting its composition to be fully borne out by the analysis. The "ZOEDONE" is a bright, sparkling, and very pleasant beverage, quite free from medicinal taste; indeed, it forms a most agreeable and elegant vehicle for the administration of the Phosphates of Lime and Iron which it contains, and which are in a complete state of solution.

ARTHUR HILL HASSALL, M.D., London,

Author of "Food, its Adulterations, and the Methods of their Detection."

ZOEDONE is supplied direct by us and our Agents on the following Terms, Cash Prices, including bottles and package, free Rails at Wrexham—6/6 per dozen in half Champagne Bottles (in 6 dozen cases). 12/- per dozen in large Champagne Bottles (in 3 dozen cases). 6d. per dozen extra on small, and 1/- per dozen on large, for export, packed in casks cases. Trade Terms on application.

WHOLESALE AGENTS:—

LONDON—Messrs. Allen & Hanburys.
" Messrs. Barclay & Sons.
" Messrs. W. Best & Sons.
" Messrs. Corby, Stacey & Co.
" Messrs. Edwards & Sons.
" Messrs. Evans, Lescher & Evans.
" Messrs. Heron, Squire & Francis.
" Messrs. Ingram & Royle.
" Messrs. Lynch & Co.
" Messrs. S. Maw, Son & Thompson
" Messrs. F. Newbery & Sons.
" Messrs. Probyn & Co.
" Messrs. Savory & Moore.
" Messrs. Young & Postans
ABERDEEN—Messrs. W. Paterson & Sons.
BELFAST—Messrs. Grattan & Co.

BIRMINGHAM—Messrs. Southall Bros. & Barclay.
BRADFORD—Messrs. Harrison, Parkinson & Co.
BRISTOL—Messrs. Ferris & Co.
CHELTENHAM—Mr. Joseph James.
CORK—Messrs. W. & H. Goulding.
" Mr. T. R. Lester.
COVENTRY—Messrs. Wyleys & Co.
DUBLIN—Messrs. Hamilton, Long & Co.
" Messrs. Johnson & Oldham.
" Messrs. A. & R. Thwaites & Co.
EDINBURGH—Messrs. Duncan, Flockhart & Co.
" Messrs. John Mackay & Co.
GLASGOW—The Glasgow Apothecaries' Co.
HULL—Messrs. Lofthouse & Saltmer.

LANCASTER—Messrs. W. H. Bagnall & LEEDS—Messrs. Goodall, Backhouse & LEICESTER—Messrs. John Richardson & LIVERPOOL—Messrs. Clay, Dod & Case
" Messrs. Evans, Sons & Co.
" Messrs. Raimes & Co.
" Messrs. R. Sumner & Co.
" Messrs. Clay & Abraham
" Messrs. Symes & Co.
MANCHESTER—Messrs. James Woolf Sons & Co.
NEWCASTLE-ON-TYNE—Messrs. Brady Martin.
NICE—Mr. J. Daniel.
NORTHAMPTON—Mr. Frederick Kirby
PARIS—Hogg, 2 Rue Castiglione.
YORK—Mr. Henry J. Pratt.

PATENTEE—DAVID JOHNSON, F.C.S.

Manufacturers, RICHARD EVANS & CO., Wrexham, North Wales.

Sparkling Phosphate

A DELICIOUS NERVINE TONIC BEVERAGE.

NON-ALCOHOLIC, STIMULATING, INVIGORATING, REFRESHING.

Containing the HYPOPHOSPHITES of Iron, Lime, Potash, and Soda in perfect and Stable Solution. These Salts are acknowledged to be greatly superior to the Phosphates. Its tonic properties are invaluable in preventing the lassitude produced by summer heat.

In half-pint Seltzer Bottles, to retail at 4s. per dozen; also in half and large Champagne Bottles, at 4s. 6d. and 7s. 6d. per dozen.

WHOLESALE PRICES:

Champagne Bottles, per dozen, 5s. 6d.; Half ditto, 3s. 4d.;
Seltzer ditto, 2s. 10d.;

Delivered free in London by our own vans.

A discount of 2d per dozen for Cash on delivery, and an additional discount of 2d. per dozen off quantities of not less than 1 gross; 1s. per dozen charged and allowed for bottles.

For the country, packed in Bin Cases of 6 dozen Small Bottles and 3 dozen Large; full price allowed for bottles and cases when returned carriage paid.

WHOLESALE AGENTS:

London—Messrs. Barclay & Sons.	LONDON—Messrs. Lynch & Co.	BIRMINGHAM—Messrs. Southall Bros.
" W. Best & Sons.	" S. Maw, Son & Thompson.	& Barclay.
" Herrings & Co.	" Wright, Layman & Umney.	EXETER—Messrs. Evans, Gadd & Co.

SOLE PROPRIETORS AND MANUFACTURERS.

EDRIS & COMPLY.,

MANUFACTURERS OF PURE MINERAL WATERS,

AINCOURT WORKS, MANSFIELD ROAD, HAVERSTOCK HILL,

LONDON, N.W.

SPECIAL PRICE LIST OF PURE MINERAL WATERS, IN SYPHONS AND BOTTLES, OFFERING GREAT ADVANTAGES TO LARGE BUYERS FOR CASH, POST FREE ON APPLICATION.

THE LEAMINGTON APNEUMATIC MINERAL WATERS

Apneumatic Soda Water.
Apneumatic Brighton Seltzer.
Apneumatic Potass Water.



Apneumatic Lithia Water.
Apneumatic Aerated Water.
Lemonade.

GINGER ALE (Aromatic). ORANGE CHAMPAGNE.

GUARANTEED FREE FROM ALL IMPURITIES.

Our terms are more favourable for a family trade than those of any first-class makers.

KINMOND & CO., LATE J. DAILY & CO., LEAMINGTON.

Trade List and Descriptive Pamphlet of the Apneumatic process free on application.

FOREIGN

MINERAL WATERS.

FREDERICKSHALL (5 Cases, 6d. per Case less); 24/6 Case, 30 bot.; 34/ Case, 50 1/2-bot.

APOLLINARIS (20 Hpr., 1/- per Hpr. less), 25/ Hpr., 50 bot.; 39/ Hpr., 100 1/2-bot.

Champers free, carriage paid; Empty Bottles, 6d. per dozen.

HUNYADI JANOS (10 Cases 1/2-bts., 5/- less; 10 Cases, bts., 3/- each less), 30/- Case, 25 bts.; 50/- Case, 50 1/2-bts.

ELTZER ... 11/6 Hpr., 25 bts.

" ... 15/6 Hpr., 50 1/2-bts.

PULLNA ... 18/- Case, 20 bts.

" ... 30/- Case, 50 1/2-bts.

VICHY ... 31/- " 50 bts.

" ... 27/- " 50 1/2-bts.

CARLSBAD ... 37/6 " 50 bts.

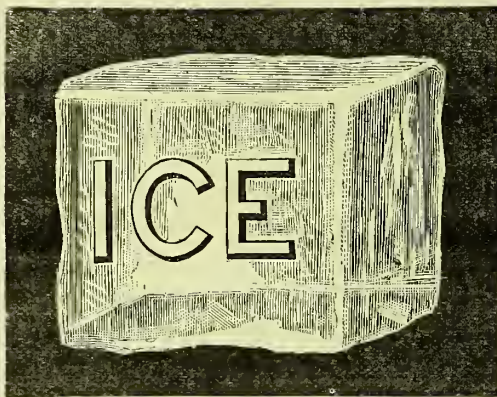
KISSENGEN ... 45/- " 50 "

SCHWALLBACH ... 27/6 " 50 "

HOMBURG ... 37/6 " 50 "

WILDUNGEN ... 40/- " 50 "

CARLSBAD SALTS, 1/2-Bots., 21/- per doz.; 1/4-Bots., 41/- per doz.; Bots., 80/- per doz.



FINE NORWEGIAN BLOCK ICE.

ORIGINAL BLOCKS, 2 to 3 cwt. each 2/6 per cwt.

1 cwt. to 2 cwt. ... 3d. per lb.

Under 1 cwt. ... 1d. per lb.

Packing and Mats for Original Blocks free; 3d. each allowed for Mats if returned in good condition.

PRINTED DIRECTIONS for STORING ICE sent free on application.

W. B. HARRISON,
IMPORTER OF ICE AND
MINERAL WATERS,
6 Bridge Street, Sunderland.

MILLS & CO.

BOURNE WATER,

THE PUREST IN ENGLAND.

MILLS & CO., Manufacturers of the Original BOURNE ARTESIAN AERATED WATERS.

BOURNE SODA WATER, unequalled for its natural Alkalinity.

BOURNE POTASH WATER—a Special Remedy for Rheumatism and Gout.

BOURNE LEMONADE—Superior Quality, made from the Fruit.

BOURNE AROMATIC GINGER ALE—a Fine Tonic.

BOURNE LITHIA WATER—Specific for the Gout. Guaranteed to contain a fixed quantity of Lithia.

BOURNE SELTZER WATER—The natural Alkalinity of the Bourne Artesian Well Water, combined with Artificial Salts, produces one of the best articles made.

This Seltzer Water is well adapted for invalids for its purity.

When taken at dinner-time, it promotes digestion.

Early in the morning, slightly aperient.

R. M. MILLS & CO., MANUFACTURERS, BOURNE.

Messrs. Padgett & Son, Wine Merchants, 27 Motcombe Street, and Messrs. Hardy & Co., Chemists, 43 Fenchurch St., corner of Mincing Lane, Wholesale Agents, London.

And their appointed Agents throughout the Kingdom.

J. H. CUFF'S

MINERAL WATERS,

Atkinson St., Deansgate,

MANCHESTER.

ESTABLISHED IN 1801.

SODA WATER (ordinary)

SODA WATER B.P.

SELTZER WATER

LITHIA WATER

POTASS WATER

15 grs., 20 grs., & 30 grs.

(each half-pint)

LEMONADE

GINGER ALE

GINGER BEER

AERATED WATER

without alkali

QUININE TONIC

WATER

LITHIA WITH POTASS WATER, &c., &c.,
Supplied in ordinary and half-sized bottles and in syphons.

Cuff's Waters are prepared expressly for a High-class Family Trade.

PRICES MOST REASONABLE.
LIST FREE ON APPLICATION.

CARRIAGE PAID ON FULL GOODS
AND RETURNED EMPTIES.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER

(GUARANTEED PURE AND FREE FROM CAPSICUM).

Trade Price, 5s. per lb.

ighly adapted for the manufacture of *Transparent Aërated Waters*, and for all *Dietetic, Medicinal, and Pharmaceutical* Purposes. THE COST in the manufacture of GINGER BEER, &c., is a little under 2½d. per dozen bottles.

Medical and other opinions on the
Soluble Essence.

"Singularly free from resin."—*The Lancet*.

"It should entirely supersede the official preparation of the British Pharmacopœia."—*Medical Press*.

"It is a pure, elegant preparation, and is free from inous matter."—*Medical Times and Gazette*.

"It is a pharmaceutical desideratum."—*The Chemist and Druggist*.



Medical and other opinions on the Ginger
Beer made from the Soluble Essence.

"An excellent effervescing drink."—*The Lancet*.

"Preferable to some wines we have tasted under the name of champagne."—*Medical Press*.

"Clear and transparent, and very pleasing to the palate."—*Medical Times and Gazette*.

"Has the purest Jamaica Ginger aroma, distinguishable as soon as poured out. It is a beverage fit for any gentleman's table, and ought to attain great popularity."—*The Chemist and Druggist*.

"Stands in the foremost rank of Aërated Waters."—*Mineral Water Trade Recorder*.

THE COMPOUND ESSENCE

(GUARANTEED PURE AND FREE FROM CAPSICUM).

Trade Price, 5s. 6d. per lb.

This Essence, which is an addition of *Vanilla, Lemon, and other flavours* to the above, is strongly recommended for the manufacture of Ginger Beer, Wines, &c., to which it imparts with the GINGER a PECULIARLY FINE FRUITY FLAVOUR AND AROMA. THE COST of this Essence in the manufacture of Ginger Beer, &c., is a little under 3d. per dozen bottles.

THE COMPOUND FORTIFIED ESSENCE Specially adapted for the Manufacture of GINGER ALE.

Trade Price, 5s. 6d. per lb.

THIS ESSENCE, besides its special adaptation as above, is strongly recommended for the manufacture of GINGER BEER and other kinds of Aërated Beverages, especially in those cases where it is desired to impart to those drinks at a SMALL COST the FULLEST amount of PUNGENCY with the FINE GINGER AROMA and FRUITY FLAVOURS of the LAST-MENTIONED ESSENCE.

THE COST of this Essence in the manufacture of GINGER ALE is 1½d. per dozen bottles, and for GINGER BEER and GINGERADE a little under 1½d. per dozen bottles.

GINGER ALE EXTRACT

Supplies all Colouring and Flavours. 4/- per lb.

THIS EXTRACT is strongly recommended for the manufacture of GINGER ALE, to which it imparts an unusually FINE FLAVOUR AND GREAT BRILLIANCY, at a cost of a little under 1d. per dozen bottles.

PREPARED BY

W. HAY, Manufacturing Chemist,
REGENT'S TERRACE, ANLABY ROAD, HULL.

AGENTS:

Messrs. HEARON, SQUIRE & FRANCIS, Wholesale Druggists, 5 Coleman Street, London, E.C.

THE GREAT BIRD'S

DELICIOUS

RASPBERRY BEER POWDER

Produces Raspberry Beer like the flavour of the fruit, clear, bright, and sparkling, at 3½d. per dozen ½-pint bottles, including all cost.

BIRD'S

REFRESHING

LEMON BEER POWDER

Makes this favourite summer beverage, Lemon Beer. A 4d. packet is sufficient for three and a half dozen half-pint bottles. It is alike suitable for the healthy and the convalescent.

Prepared only by **F. BIRD, Chemist, COVENTRY.**
WHOLESALE LONDON DEPOT: 223 UPPER THAMES STREET.

W. MATHER, NEWBURY, BARCLAY, SUTTON, London; HARRIS, Birmingham; EVANS, Liverpool.

DISCOVERIES.

BIRD'S

GINGER BEER & POP POWDER

Produces Ginger Beer, Sparkling and Effervescing; its fresh Lemon and Ginger Flavour is unsurpassed; it is used by thousands, and preferred by all; it is soon in perfection, and is made quicker than by any other method known. A packet will make two gallons.



See Trade Mark—a Watch and a Loom, with Motto, Punctuality and Perseverance, on each Packet. Write for Testimonials and Opinions of the Press, also further Testimonials.

PRICE, 27s. and 36s. PER GROSS; also in 3 & 6 doz. Boxes.
N.B.—SPECIALLY PACKED FOR EXPORTATION.

The use of the words Raspberry Beer Powder, Lemon Beer Powder, and Sparkling Ginger Beer and Pop Powder, or any imitation whatever, is illegal; and any infringement of the law will be resisted.

VALE OF AYLESBURY AND CHILTERN HILLS MINERAL AND AERATED WATER COMPANY,

The Purest and Best in the United Kingdom. See Analysis.

They have also obtained the highest awards and praise wherever exhibited, and, before ordering elsewhere, the Trade should send for prices, which are very advantageous for a first-class family connection.

Proprietors—**SAMUEL GULLIVER & CO., AYLESBURY.**

W. S. YATES,

Chemists' Shop Fitter, Shop Front Builder,
and Glass Show Case Maker.

PLANS AND ESTIMATES SUPPLIED FOR WORK IN ANY PART
OF THE KINGDOM.

9 CAMDEN STREET, LIVERPOOL.

Every Man who Smokes should ask his Tobacconist for the

The most Perfect Pipe
invented since smoking
began.

Send for Price List to

JENNINGS & CO.,
97 Newgate St., E.C.



COLTHURST & HARDING,

TEMPLE GATE, BRISTOL,
IMPORTERS OF

Petroleum, Benzoline, Gasoline, Turpentine,

OLIVE, COLZA, COD, CASTOR, SEAL, WHALE, & SPERM OILS,
TALLOW, PITCH, TAR, ROSIN, &c.

MANUFACTURERS OF

WHITE LEAD, PAINTS,

OF ALL

Soft Soap, Greases, Linseed

PAINTS IN TINS

TRADE

Ball denotes



COLOURS, AND VARNISHES
KINDS.

Meal, and Crushed Linseed.

MIXED FOR USE,

MARK.

Colour of Paint

All Colours in 1, 2, 4, and 7 lbs.

VARNISHES OF ALL SORTS IN TINS OF ALL SIZES.

CAUTION.

An Advertisement having been inserted in the "Lancet" by Messrs. STURVE & Co., of Brighton, of **HUNYADI JÁNOS WATER** (since stated to be manufactured by them), **THE APOLLINARIS COMPANY, LIMITED**, the sole importers of the **GENUINE** Hunyadi János Water and the Proprietors of the Trade Mark, deem it right to inform the Trade at, to avoid litigation, Messrs. STURVE & Co. have withdrawn such advertisement.




Traders are cautioned that, on any infringement of the **APOLLINARIS COMPANY'S TRADE MARK** rights **HUNYADI JÁNOS**, legal proceedings will be immediately instituted.

CAUTION.

An Advertisement having been inserted in "The Chemist and Druggist," by Mr. H. BOLLMAN CONDY, offering for sale **Condy's Patent Oxygenated Concentrated HUNYADI JÁNOS**, and **THE APOLLINARIS COMPANY, LIMITED** (the Sole Importers of the **GENUINE** Hunyadi János Water, and the Proprietors of the Trade Mark), having threatened to take legal proceedings against Mr. CONDY, Mr. CONDY has expressed his intention no longer to sell advertise the said preparation.

Traders are cautioned that, on any infringement of the **APOLLINARIS COMPANY'S TRADE MARK** rights in **HUNYADI JÁNOS**, legal proceedings will be immediately instituted.

IMPORTANT DESIDERATA ARE SUPPLIED IN

	<p>LIME JUICE</p> <p>N.B.— Exceedingly handsome Show-Cards, together with Handbills of a most exceptionally respectable character, are supplied to purchasers of these professionally recommended preparations.</p> <p>LIME JUICE</p>	<p>WENHAM'S</p>  <p>WENHAM'S</p>	<p>CHALYBEATE</p> <p>The only Effervescent Salines which do not exert a physiological action upon the blood; the converse of Lime Juice, or fruit of any kind whatsoever.</p> <p>SALINE.</p>	
--	---	---	--	---

In BOTTLES, 2s. 6d. and 4s. 6d. each; CASES, 21s.

SOLE MANUFACTURERS (REGISTERED).

WHEELER & CO., LONDON, and SOUTHEND-ON-SEA.

Messrs. WHEELER & Co. have produced a REMARKABLY HANDSOME SHOW-CARD, representing a package of WENHAM'S LIME-JUICE SALINE, on a gold ground, with a border of lime fruit and blossoms.—CHEMIST AND DRUGGIST, Trade Notes, July, 1879.

AMPOUGH'S EFFERVESCENT PYRETIC SALINE.

HAVE IT IN YOUR HOUSES AND TRAVELS, USING NO OTHER SALINE; it gives instant relief in Headaches, Sea or Bilious Sickness, and quickly cures the worst form of Eruptive or Skin Complaints. The various diseases arising from Constipation, the Liver, or Blood Impurities, Inoculation, the results of breathing air infected with Fevers, Measles, or Smallpox, are frequently prevented and certainly cured by its use.

The sale of these Saline Salts having greatly increased during the past few years, I beg most cordially to thank those who sell and recommend the same, and also to inform intending dealers that they will find Messrs. BARCLAY, EDWARDS, MAW, NEWBERRY, SANGER, SUTTON, and the Wholesale Houses generally, ready to supply their wants. This Advertisement is found needful in consequence of the trouble, cost, and inconvenience in the keeping and collection of numerous small accounts. *Note.*—The Name, Trade Mark, Labels, Wrappers, &c., are all Registered and Entered at Stationers' Hall.

113 HOLBORN HILL, LONDON, E.C.

SPECIAL NOTICE.—Medical Gentlemen having fever cases, and desirous of trying the Saline, can have a single bottle at wholesale prices by sending their cards.

Patent Effervescing Citrate of Magnesia Drops.

Patent Effervescing Lemon Kali Drops.

Patent Effervescing Lime Juice Drops.

Patent Effervescing Seidlitz Drops.

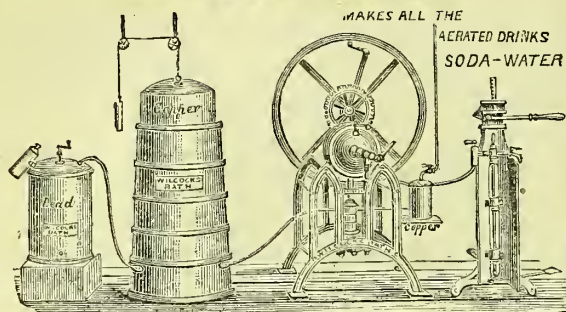
THE MOST DELICIOUS, COOLING, AND REFRESHING SWEETS IN THE WORLD.

Especially suitable for Hot Climates. An immense sale for them wherever introduced.

SAMPLES AND PRICES ON APPLICATION.

Manufactured only by

JAMES GREENWOOD, Wholesale Druggist, BACUP, LANCASHIRE, ENGLAND.

COMPARE**WITH OTHER MAKERS.**

N. G. WILCOCKS
BATH
 ESTABLISHED

N. G. WILCOCKS'

SODA WATER & LEMONADE MACHINES.

THE Opinions and Testimonials which have been published must convince everyone that Wilcocks' Machinery is quite satisfactory. Hundreds of factories are fitted or supplied with these Machines, and testimonials extending over many years are so numerous that though several hundreds have been printed, a very much larger number has been received.

N. G. Wilcocks has had a long practical experience, and gives his undivided attention to this branch of his business. Every portion of the Machines he makes has had his most diligent study for years past, and his inventions and designs have been approved and used by some of the most eminent Aërated Water Makers in the kingdom. All his customers, British or foreign, may be assured of his personal attention to their orders.

All Wilcocks' Machines are made on the continuous process direct-action Bramah principle; the solid plunger works through the bottom of the pump in a ring or collar of cupped leather; the valve body is at the top of the pump. Constant and energetic endeavours have been given to make these Machines the most perfect in existence, and these endeavours have been successful. Mr. Wilcocks can introduce his customers to factories where they can see his Machines in full and profitable operation, and so have an opportunity of judging for themselves.

Wilcocks' "Favourite" Machine is really the favourite among makers; most intending manufacturers purchase one of the four sizes in which it is made. The full-sized Machine, with dial and water gauges, and gas work, as exhibited at the recent Mineral Water Trade Exhibition, Agricultural Hall, London, sells at £42 10s. Hundreds of these have been sold during the last few years, and they are generally esteemed first-class moderate priced Machines.

Wilcocks' Bottling Apparatus is the result of prolonged study; it is the simplest in use, and is consequently the most

easily repaired, while it is quite as efficient as the most expensive.

The "Eclipse Filling Machine," at £4 10s., can be so confidently recommended that the money will be returned in any case where it fails to give satisfaction. It is hoped that its very low price will not raise a prejudice against it.

A simple contrivance for Syruping has just been perfected by Mr. Wilcocks, and particulars will appear in future announcements.

His Soda Water Machine makes 200 dozen bottles a day with hand power; more can be turned out if a small motor, such as a steam, air, or water engine, be employed. Any filling apparatus, patent or not, for patent or corked bottles can be attached to this machine.

Mr. Wilcocks has very complete plant, tools, and stock, and employs a staff of highly skilled and experienced workmen. Every part of his machines is made by his own workmen from the best materials. The copper gun-metal and English tin are of the best obtainable quality; sound, well-seasoned oak is used for the cooerage.

By thus making even the earliest stages of the machines, all intermediate profits are avoided, and the quality of the material and the soundness, accuracy, and finish of the workmanship can be guaranteed. Every machine is carefully tested by actual use before it is sent out. Although Wilcocks' Machinery is low in price, it is confidently claimed that it will be found equal in every respect to the best in the market.

Every process of manufacture can be seen in active operation at Bath.

Mr. Wilcocks has had long experience, not only in machines but in every other requirement of the Aërated Water Trade and he is prepared to supply formulæ for bottled drinks, full directions for manufacture, plans and estimates for complete factories, and all information necessary to ensure success in this lucrative business.

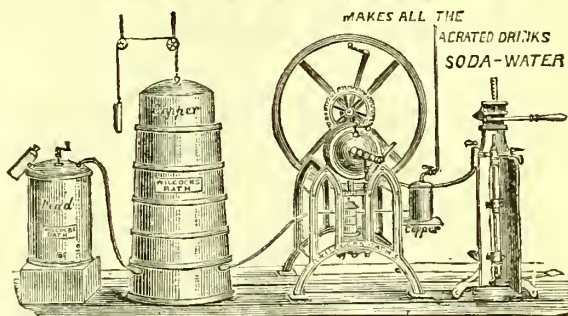
ALL ORDERS ARE PROMPTLY EXECUTED.

Address,

N. G. WILCOCKS, SODA WATER MACHINIST, BATH

WILCOCKS

COMPARE



WITH OTHER MAKERS.

THE ECLIPSE FILLING MACHINE,

TO FILL PATENT BOTTLES.

£4 : 10 : 0.

Will fill Codd's, Lamont's, Barrett & Elers',

AND OTHER PATENT STOPPER BOTTLES.

All the Patent Bottles brought to Wilcocks' Stand at the MINERAL WATER TRADES SHOW, in October last, were filled with this Machine, in the presence of the Mineral Water Makers.

COMPARE

The following Prices with those of other Makers.

A full-size Machine, to make 200 dozen per day by hand power	{ Dial Pressure and Water Gauge and Bottling Rack are included with each. }	£50	0	0
A small Machine, to make 100 dozen per day by hand power		£40	0	0
A smaller Machine, to make 60 dozen per day by hand power		£30	0	0
Vring Stand or Tying Stool		£1	10	0
Bottle-Washing Apparatus for Power		£1	5	0

A printed Book of Testimonials and opinions from buyers and users of N. G. W.'s make Soda Water Machine Engines and Boilers, also new Illustrated Descriptive Catalogue, sent post free to any part of the globe upon application.

A number of the above Machines can be seen in different stages of progress at this Manufactory. Inspection, and a visit from an intending purchaser, is invited to examine the weight, strength, size, capacity, quality, finish, and price in this Machine, and the testimonials from large numbers to whom this Machine has been supplied in years past. If required, a written guarantee is given to a purchaser with each Machine.

A complete Machine, with Vertical Boiler and Horizontal Steam Engine, to make 300 dozen per day, with all Mountings	£91	10	0
A complete Machine, with Vertical Boiler and Horizontal Steam Engine, to make 2,000 dozen per day, with all Mountings, ready for work	£150	10	0

NATHANIEL GEORGE WILCOCKS, ENGINEER, BATH.

SILICATED CARBON FILTERS.

SYPHON FILTERS FOR TRAVELLERS.

By means of these Filters pure and perfectly wholesome water may be drunk from any pond or stream by simply immersing the Filter therein and drawing the water through the tube by suction.

Each of these portable Filters may be



No. 20.

used as a Syphon by placing it in a vessel of water, then drawing the water by the month, and allowing the flexible tube to hang over the side below the Filter. When once set in operation their action is continuous.

They are readily cleaned from sedimentary matter by merely blowing through the tube, and brushing the surface of the filtering medium.

- | | |
|--|------|
| A.—Pocket Filter, 2½ inches diameter, in porcelain, with glass mouthpiece, in decorated metal box | 2 6 |
| B.—Ditto, 3½ inches diameter, in best stoneware | 5 0 |
| Ditto, " " " with silver-plated tap | 7 0 |
| C.—Emigrant's, 5 inches diameter, with silver-plated tap | 12 0 |
| G.—Pocket Filter, for carrying over shoulder, as supplied to the Forces in Abyssinia and in Zululand, and to the Ashantee Expedition | 3 6 |
| H.—Ditto, nickel-plated, designed by Major Fraser, R.E., and specially recommended by the Horse Guards for Officers' kits | 5 0 |

TABLE FILTER, NO. 24.

Made of stout glass, in 1, 2, and 3 pint sizes, the filtering medium being securely fitted into the bell-funnel, so that it is not liable to become loose, or to allow unfiltered water



to pass. This Filter is peculiarly suited for the Bedroom and for Table use, affording a ready and simple means of obtaining any time freshly-purified water.

PRICES.

O, 2s. 6d.; A, 4s.; B, 5s. 6d.

Engraved Vine Pattern—O, 3s. 6d.; A, 5s. 6d.; B, 7s. 6d.

POROUS TERRA COTTA FILTER, NO. 29

Shape of this Filter as Fig. No. 24.

O, 2s. 6d.; A, 4s.; B, 5s. 6d.

SILICATED CARBON BLOCKS.

2in., 1s. 6d.; 2½ in., 2s. 6d.; 2¾ in., 3s.; 3½ in., 4s.; 4¾ in., 5s. 6d.

SPECIAL QUOTATIONS FOR QUANTITIES.

PRIZE FILTER,

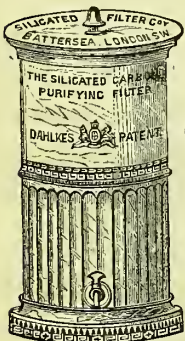
This Filter is constructed in the form and colour of an Etruscan Vase, having inside it a movable pan, into which the Silicated Carbon filtering medium is fitted.



PATTERN NO. 23

The exterior is made of Porous Ware, which acts with remarkable power as a Refrigerator, keeping the water deliciously cool. Capacity, about Two Gallons.

PRICE, WITH SILVER-PLATED TAP, £3 10s.



DINING-ROOM FILTER, No. 22.

MADE IN MARBLED CHINA.

Size A holds about two gallons; size B, five gallons.

PRICES.

A	35s.
B	80s.
A, with Ice Compartment (New Patent.)	42s.
B, with Ice Compartment (New Patent.)	100s.

The large size (B) is specially adapted for Hotels, Refreshment Rooms, Luncheon Bars, &c.

REFRIGERATOR FILTER, NO. 25.

Made in Porous Terra-Cotta Ware,

Which acts with remarkable power as a cooler, and renders this Filter invaluable, especially in Tropical Climates,

AFFORDING A

COOL DRAUGHT OF PURE WATER.

Price, with Silver-plated Tap 81s. 6d.
Ditto, ditto, with Ice Compartment 42s. 0d.
Capacity, Two Gallons.

Specially adapted for Tropical Climates.



PORTABLE FILTER, No. 34, for Travellers at Hotels, Families at the Seaside, Pic-nics, &c. in Marbled Porcelain, with Cover. Can be placed in a jug, decanter, or other vessel. Price 7s. 6d. each.

SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.

NOVELTY.

SILICATED CARBON POCKET FILTER,

IN GERMAN SILVER, NICKEL-PLATED.

Retailed at FIVE SHILLINGS each.

Designed by

MAJOR FRASER,

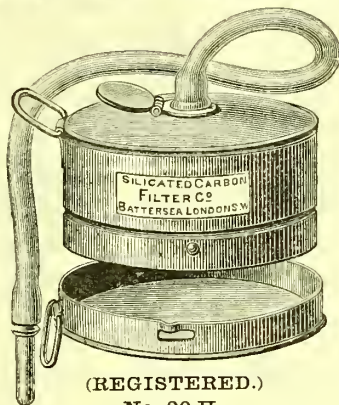
of the

ROYAL ENGINEERS,

especially

for Officers' Kits.

Weights only 8 ounces.



(REGISTERED.)

No. 20 H.

It has been approved

by the

Authorities at the

Horse Guards, and has

been largely

used in the Afghan and

Zulu Expeditions.

Sample sent free by Post on receipt of FOUR SHILLINGS.

DOMESTIC FILTER, NO. 27.

Made in cream-coloured Stoneware, fitted with the Silicated Carbon Media, complete with Cover and Silver-plated Tap.

All sizes of this pattern can now be had with Patent Ice Compartment, which renders this Filter the most perfect of Refrigerators.

PRICES.

	No. 0, capacity	1/2 gall.	10s. 6d.	With Ice Compartment.
No. A.	" 1	"	14s. 6d.	17s. 6d.
No. B.	" 2	"	21s. 0d.	25s. 0d.
No. C.	" 4	"	32s. 0d.	36s. 0d.
No. D.	" 6	"	42s. 0d.	48s. 0d.
No. E.	" 8	"	52s. 0d.	60s. 0d.
No. F.	" 12	"	70s. 0d.	80s. 0d.

UNIQUE STONEWARE FILTER, NO. 28

No House should be considered as thoroughly furnished until it is supplied with one or more good Filters.

No Water should be used for Drinking or Cooking without being Filtered.

This Filter is made of a New Ornamental Stoneware, similar in shape to the Domestic Filter, and of two-gallon capacity. When arranged in a Hall or Conservatory, side by side with evergreens, the effect is very pleasing.

Price, with Silver-plated Tap, 30s.



MAIN SUPPLY FILTER, NO. 40.

SPECIALLY ADAPTED FOR

Manions, Schools, Hospitals, Public Institutions, Breweries, Distilleries, Soda Water Manufactories,

Dye Works,

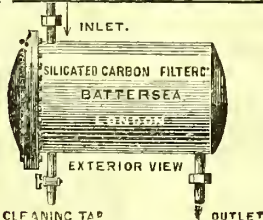
And other Establishments where large quantities of

PURE WATER

Are required.

Ordinary Sizes kept in Stock are as follows:—

1/2-inch or 3/4-inch pipe	£6 6s.
1-inch pipe	£9 9s.
1 1/2-inch, 1 1/2-inch pipe	£15 15s.
2-inch pipe	£26 6s.



This Filter is extremely simple in construction, and can be either connected with a Cistern or attached to the Main Service Pipe. It requires no attention beyond an occasional opening of the Cleansing Tap, and will deliver a supply of purified water at a rate of 50 to 1,000 gallons per hour, according to size.

Special Contracts entered into for Large Works, Institutions, &c., &c.,

PURIFYING THE WHOLE OF THE WATER SUPPLY OF A BUILDING BEFORE USE.

Ensuring Rapid and Perfect Filtration, at either High or Low Pressure.

SILICATED CARBON FILTER CO., CHURCH ROAD, BATTERSEA, LONDON.

PARIS: 131 Boulevard Sebastopol.

NEW YORK: 194 William Street (H. R. Mensing, Agent).

LAMBURG: 9 Deichstrasse (Joseph Schmutzer & Co., Agents).

NELSON'S PURE BEEF TEA.

SOLD IN HALF-PINT PACKETS.

THE LANCET says:—"This is an ingenious and excellent preparation. It dissolves readily in warm water, keeps for an indefinite length of time, and is very portable. Its flavour is all that could be desired. The article includes not only those constituents of the meat which are soluble in hot or cold water, but also much of the fibrin and the whole of the albumen."

THE MEDICAL PRESS says:—"It is one of the best articles of the class we have ever examined."

THE MEDICAL TIMES says:—"A decidedly valuable acquisition; contains all the constituents of meat; no hesitation in strongly recommending it."

Each packet bears the
Signature—

Geo. Nelson

NELSON'S SOUPS.

Beef with Peas and Vegetables.

SOLD IN 1½ PINT PACKETS.

Miss Mary Hooper, Authoress of "Little Dinners," says:—

"I have tried your Beef Tea and Soup, and have found them excellent; indeed, in my opinion, they are by far the best things of the kind ever before the public. The Soup is excellent in flavour, and is good nourishment. It is very nice, and is most useful for strengthening and flavouring household soup or broth. It is, besides, so cheap that it cannot fail to be appreciated by all classes of the community, and it will be of great use to charitable people, as it will enable them readily to supply, at a small cost, a good, warm, nourishing meal."

Samples and Prices on application to the Manufacturers,

GEORGE NELSON, DALE & CO.,

14 DOWGATE HILL, LONDON, E.C.

DELECTABLE JUJUBES, VOICE JUJUBES,

GLYCERINE AND CHLORODYNE JUJUBES,

MEDICATED AND HIGH-CLASS LOZENGES

LIME FRUIT TABLETS, EVERTON TOFFEE,

ACID DROPS, and Best Quality BOILED SUGARS of every kind.

FRAGRANT BOUQUET LOZENGES, 300 in an ounce, have an immense sale.

GIBSON'S (ORIGINAL) CHLORODYNE LOZENGES.

SUGAR WORM CAKES; keep in any climate; suitable for either Children or Adults

MANUFACTURED BY

ROBERT GIBSON, CARLTON WORKS, HULME, MANCHESTER,

And 1 AUSTRALIAN AVENUE, LONDON.

Price Lists sent on application. Our Goods can be bought through any Wholesale House in London.

Gold Medal, Paris Exhibition.

FRY'S COCOA EXTRACT,

IN PACKETS AND TINS.

Pure Cocoa only, with the superfluous
oil extracted.

It is strongly recommended to all who appreciate the full flavour and fine aroma of Cocoa.

"It is strictly pure, and well manufactured in every way."—W. W. STODDART, F.I.C., F.C.S., *City Analyst, Bristol.*

"If properly prepared, there is no nicer or more wholesome preparation of Cocoa."—*Food, Water, and Air*, Edited by Dr. HASSALL.

J. S. FRY & SONS, BRISTOL & LONDON.

TRY ALSO

FRY'S CARACAS COCOA.—"A delicious preparation."

A CUP OF DELICIOUS INVIGORATING COFFEE

IN PERFECTION, by using

SYMINGTON'S ESSENCE OF COFFEE

OR ESSENCE OF COFFEE AND CHICORY.

These Preparations are specially recommended as Un-Wholesome, and Economic Dietetic Beverages, possessing Coffee aroma, but free from the TREACLY TASTE and BU-FLAVOUR always complained of in other such Essences.

London Agents, W. & C. Volekman, F. Newbery & S. Barclay & Sons, and Maw, Son & Thompson.

THOS. SYMINGTON & CO., Chemists,
BEAVERBANK WORKS, EDINBURGH.

DR. RIDGE'S

PATENT COOKED DELICIOUS FOOD

FOR INFANTS AND INVALIDS.

Chemists should keep this celebrated article in stock, as it meets with a ready and rapid sale.

MANUFACTURED ONLY BY THE SOLE PROPRIETORS—

RIDGE & CO., Royal Food Mills, LONDON, ENGLAND.

NESTLE'S MILK FOOD,

For Infants, Children, and Invalids.
London Depot—7 BARBICAN, E.C.

NESTLE'S MILK FOOD is prepared at Vevey, Switzerland, from the pure milk of Alpine fed cows, the finest wheaten flour and sugar, combined in exact proportions to imitate closely the natural food for infants. It is thoroughly cooked, and reduced to a fine powder, perfectly soluble in water, requires only the simple addition of water to prepare it for use—in this respect having the advantage over all other foods.

NESTLE'S MILK FOOD is highly recommended by the best medical authorities in all parts of the globe as a perfect diet. Nestle's is the original and genuine Milk Food or Powder.

NESTLE'S MILK FOOD is put up in tins, packed in lined cases specially for the export trade. Is highly concentrated and in a perfectly dry state. Will keep good in any climate.

Our Wholesale Agents at any port will pack and ship the Food to or for any part of the world.

Wholesale Depot: HENRI NESTLE, 7 BARBICAN, LONDON.

& C. HANCOCK'S NEW PATENT PROPELLER FLUID MIXER.

This is a new invention, of great value to all who have Fluids, Pomatum, Cold Cream, or Paints to mix. The Machine is simple in construction, very strong, easy to work or clean. Only one surface in motion, the propeller blade, which works close to the bottom, throwing heavy and light ingredients to the top, or effecting a quicker and more perfect blending than any other means, and breaking up at the same time all coagulated powders into the finest state. This Fluid Mixer is the most powerful disintegrator ever produced. In breaking up and mixing tenacious fluids; in making paste for paperhangers and bill-posting, every particle of flour is broken up in a few seconds, and a more tenacious paste produced. It is of great importance to Brewers in breaking up and mixing finings.

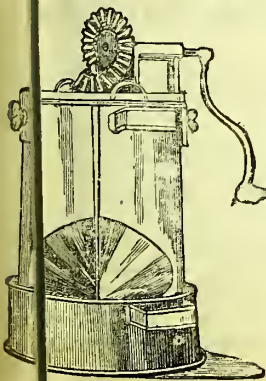
Price, from 2 to 8 quarts, £1 10s.

These machines are made in all sizes for hand or steam power.

CAUTION—Be very careful to see that the words "F. & C. Hancock's Patent, Dudley" are stamped on each Machine.

ILLUSTRATED SHEETS SENT ON APPLICATION TO

F. & C. HANCOCK, Engineers, DUDLEY, WORCESTERSHIRE.
SOLE MAKERS.

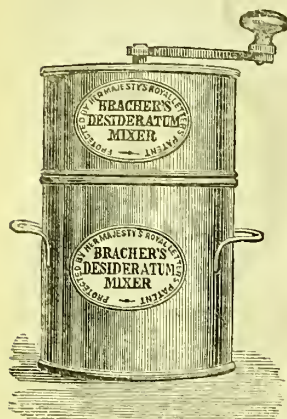


Trade Mark
Registered

Trade Mark
Registered

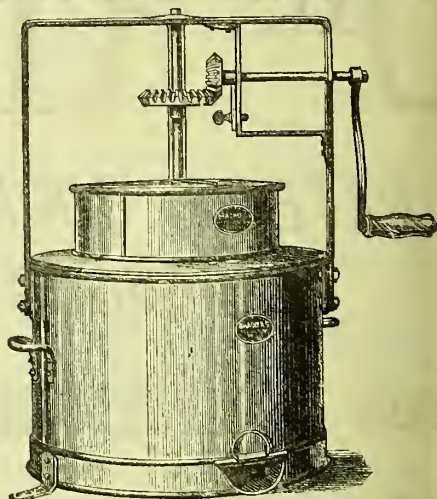
THE "DESIDERATUM" MIXING MACHINE.

BRACHER'S PATENT.



Nos. I. to IVa.

FOR
MIXING
ALL
Descriptions
OF
POWDERS.



Nos. V. and VI.

These Machines are admirably adapted for mixing all kinds of powders, heavy or light, in the shortest possible time, thereby superseding to a great extent the use of the *Pestle and Mortar*, and supply a long-felt want amongst Chemists and Druggists, Grocers, Confectioners, Drysalters, Colour Merchants, and Manufacturers.

They are durable, easily cleaned, portable, require no fixing (except in the case of large sizes), can be worked either *with* or *without* the cover, and are, without doubt, the best and cheapest Mixing Machines ever invented.

Every Retail Chemist and Druggist, Grocer and Confectioner, should possess one of these little Machines, as the small outlay would be soon repaid in the saving of time and trouble, indeed it would scarcely be thought possible that the articles could be so thoroughly blended in such an incredibly short time.

The Nos. 3, 4, and 4a are for mixing Baking Powder, Coffee and Chocory, Sherbet, Lemon Kali, &c., &c., and will blend from 1 lb. to 500 lbs. per hour. The large sizes are used by Wholesale Druggists, Confectioners, Drysalters, Sherbet and Lemon Kali Manufacturers, and all who have large quantities to mix.

See the CHEMIST AND DRUGGIST of March 15, 1879; also the GROCER AND OIL TRADE REVIEW of April 12, 1879.

Further particulars on application to the Manufacturer,

P. H. BRACHER, 77 HIGH STREET, WINCANTON.

AMERICAN DRUG & SPICE MILL

Advantages—

The cutters or grinders never wear out. Cutters or Grinders can be cleaned and refixed in one minute, thus any quantity of different article can be ground without fear of intermixture.

Price No. 4a Mill, 70/-	Price No. 2a Mill, 26/-
" " 3a " 50/-	" " 1a " 17/-
American Tincture Presses, 8/-, 12/-	

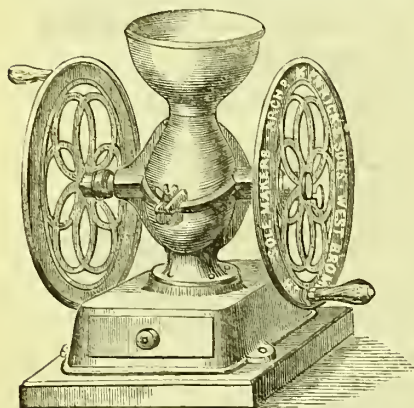
Larger size if required.

See PHARMACEUTICAL JOURNAL, November 17, 1877, page 399.

SOLE AGENT,

GEO. BURTON

221, 223, 226, 232 St. John Street, Clerkenwell.



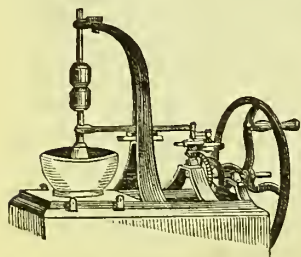
GOODALL'S PATENT GRINDING AND LEVIGATING MACHINE

"These machines have for many years proved most serviceable on a large and small scale for Grinding, Levigating, and Mixing Powders, Pill Masses, Paints, &c." *Pharmaceutical Journal*, June, 1856, p. 535; and July, 1856, p. 33.

HONOURABLE MENTION CLASS 2, 7, & 11
INTERNATIONAL EXHIBITION, 1862.

Particulars and Testimonials on Application to the Inventor and Manufacturer

H. GOODALL, DERBY.



A Machine to fix on Counter, with a 13-inch Wedgwood Mortar, Price £7; or with changing rot motion, £8 10s.

SYMINGTON'S

"EDINBURGH"

COFFEE AND MILK.

A New Preparation which, in itself, contains every essential for producing a cup of delicious, invigorating, and fine-flavoured Coffee.

The experience gained by T. S. in the manufacture of his now well-known Essences of Coffee has enabled him so to preserve the properties of the Coffee that, though combined with Condensed Milk, it still retains the full strength and aroma of freshly-roasted Coffee—a result hitherto unattained.

HOS. SYMINGTON & CO., Chemists,
BEAVERBANK WORKS, EDINBURGH.

CHEMISTS' TEA AGENCY.

BROKEN-LEAF TEA, 1s. 8d. per lb.

A Money-saving Tea, absolutely pure, in half-pound packets 10d. The all leaf from fine India and China Teas, stronger, richer, and cheaper than any whole-leaf tea. Wholesale to Dealers and Sellers and Agents. Tins sent free to any railway station in the kingdom.—**WALKER & ALRYMPLE.** Warehouses—154 and 155 Whitechapel Road, London. P.O.O. payable at Head Office. Bankers—The National Provincial Bank of England. N.B.—Samples posted free.

PACKET TEA AGENCY,

Agents Wanted. Commission Liberal.
Quality Guaranteed.

RETAIL PRICES FROM 1/10 to 3/4 PER LB.

APPLY TO

JOHNSON, JOHNSON & CO.,

WHOLESALE TEA DEALERS,

50 Southwark Bridge Road, London.

Established nearly Quarter of a Century.

Hundreds of Five Thousand Agents now Sell these Celebrated Teas.

SPONGE.

PETERSON & CO., Importers.

66 SOUTH JOHN STREET,

LIVERPOOL.

For Home, Foreign, and Colonial Markets.

Wholesale only.

HENRI'S TARAXACUM, OR DANDELION COFFEE.

Is the Best. In Tins only.

HENRI'S HOMŒOPATHIC TEA.

The only Homœopathic Tea
in Packets.

HENRI'S HOMŒOPATHIC COFFEE

The only Homœopathic Coffee
in Tins.

HENRI'S HOMŒOPATHIC COCOA

A PURE EXTRACT of COCOA.

The only TRUE Homœopathic Cocoa.

NO FAT. NO STARCH. NO SUGAR.

In Tins.

Sole Importers and Wholesale Agents—

WEBBER & CO.,

33 TRINITY SQUARE, TOWER HILL,

LONDON.

TERMS ON APPLICATION.

INDEX TO ADVERTISEMENTS,

See Pages 35 & 36.

Details of In-
formation granted
by V.-C. MALINS
may be found in
"The Chemist and
Druggist," Feb-
ruary 15, 1877,
page 76.

B. BRAND & CO'S
ESTD 1835
SPECIALTIES FOR INVALIDS
ESSENCES OF BEEF,
MUTTON, VEAL & CHICKEN,
BEEF TEA, TURTLE SOUP & JELLY,
MEAT LOZENGES &c.
SOLE ADDRESS
No 11,
LITTLE ST.
ST. MARKS, W.

Wholesale Price
Lists, Opinions
of the Press, and
full information
will at all times
be given direct,
or through the
Patent Medicine
Houses.

For Prices of
WM. SCHWEITZER'S
DANDELION COFFEE,
DANDELION COCOA,
SEA SALT,
FLY PAPERS,
INSECT KILLER,
MISS PIKE'S
FIT POWDERS,
 APPLY TO THE PROPRIETORS,
ALLEN PEARCE & CO.,
BRISTOL.

MUSTARD.

FINCH, RICKMAN & CO.'S

Genuine Qualities

Are made from the finest mustard seeds only. Their compounds, as manufactured for upwards of a century, are guaranteed free from all ingredients imparting spurious heat, and are therefore equally suitable for both table and medical purposes.

Undertake not to supply Co-operative Stores.

6 Broken Wharf, Upper Thames St., London.

E. LAZENBY & SON'S PICKLES,
 Sauces, and Condiments.—E. LAZENBY & SON
 (6 Edwards Street, Portman Square), Sole Proprietors of the Celebrated Receipts, and Manufacturers of the Pickles, Sauces, and Condiments so long and favourably distinguished by their name, beg to remind the Public that every article prepared by them is guaranteed as entirely unadulterated. Manufactory, 18 Trinity Street, London, S.E.

HARVEY'S SAUCE.—CAUTION—The admirers of this Celebrated Sauce are particularly requested to observe that each bottle prepared by E. LAZENBY & SON bears the label used so many years, signed "ELIZABETH LAZENBY."

SEVEN PRIZE MEDALS AWARDED.

GOODALL'S HOUSEHOLD SPECIALITIES

Goodall's Yorkshire Relish

THE MOST DELICIOUS SAUCE IN THE WORLD.
 This cheap and excellent Sauce makes the plainest viands palatable and the daintiest dishes more delicious. To Chops and Steaks, Fish, &c., is incomparable. Sold by Grocers, Oilmen, Chemists, &c., in Bottles 6d., 1s., and 2s. each.
 Over **FOUR MILLION (4,000,000) Bottles Sold Annually.**
LARGEST SALE OF ANY SAUCE IN THE WORLD.
CAUTION.—On each Yorkshire Relish Label is our Trade Mark Willow Pattern Plate, and name, GOODALL, BACKHOUSE & CO., other is genuine.

Goodall's Baking Powder

THE BEST IN THE WORLD.
 The cheapest, because the best, and indispensable to every household and an inestimable boon to housewives. Makes delicious Puddings without eggs. Pastry without butter, and beautiful light Bread without yeast. Sold by Grocers, Oilmen, Chemists, &c., in 1d. Packets; 6d., 1s., and 5s. Tins.

Goodall's Quinine Wine

The best, cheapest, and most agreeable tonic yet introduced. The remedy known for Indigestion, Loss of Appetite, General Debility, Restores delicate individuals to health and vigour. Sold by Chemists, Grocers, &c., at 1s., 1s. 1½d., 2s., and 2s. 3d. each bottle.

Goodall's Custard Powder

For making delicious Custards without Eggs, in less time and at half price. Unequalled for the purposes intended; will give the utmost satisfaction, if the instructions given are implicitly followed. The Proprietor entertains the greatest confidence in the article, and can recommend Housekeepers generally as a useful agent in the preparation of a good Custard.
 Delicious to Plum Pudding.
 Delicious to Jam Tarts.
 Delicious to all kinds of Puddings.
 Delicious to all kinds of Fruit Pies.
 Delicious to Steamed Rice.
 Delicious to all kinds of Fruit.
 Delicious to everything.
 Delicious alone.
 Sold in Boxes, 6d. and 1s. each, by Grocers, Chemists, Italian Warehousemen, &c.

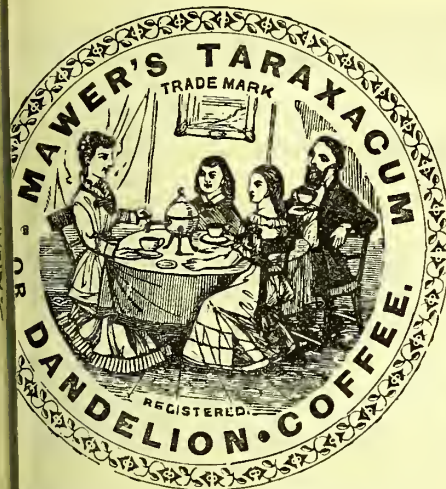
Goodall's Ginger Beer Powder

Makes Three Gallons of the Best Ginger Beer in the World for 3d. Is a delicious and invigorating beverage, possessing valuable medicinal properties. It is cooling in its nature, and a most wholesome beverage both winter and summer. It is easily made, and is by far the cheapest Ginger Beer Powder ever offered to the public. Sold in Packets 6d. and 1s. each, by all Grocers, Chemists, and Italian Warehousemen.

Goodall's Brunswick Black

FOR PAINTING STOVES, GRATES, IRON, TIN, &c.
 This invaluable composition is superior to any yet offered to the public, possessing great brilliancy, and thoroughly protecting the surface it is applied to. Sold in Bottles at 6d. and 1s. each.
 SOLE MANUFACTURERS,

GOODALL, BACKHOUSE & CO., White Horse St.,
 A Monthly Price List of Drugs, Chemicals, Druggists' Sundries, &c., can be had post free on application.



MAWER'S TARAXACUM OR DANDELION COFFEE

Prepared from the Fresh Root,

IN TINS, 6d., 9d., 1s., 1s. 6d., and 2s.,

Is by far the best in the market. Excellent in quality, neatly packed, cheap and economical, and a very saleable article. Beware of worthless imitations.

A LARGE BUYER writes:—"Our customers ask for Mawer's Taraxacum, and will have no other, and we are doing well with it."

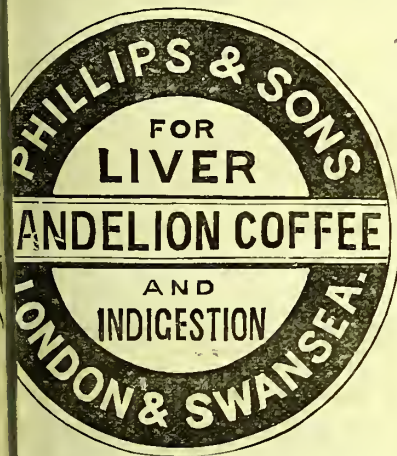
A NOBLE EARL, the oldest in the House of Peers, sends the following message:—"Present my compliments to Mr. Mawer, and tell him I like his Taraxacum, and that it agrees with me very well; and request him to send the usual number of tins."

Terms and Price Lists on application to the Manufacturer—

EDWARD MAWER,
Chemist,
HIGH WYCOMBE, BUCKS.

Handbills and Show Cards supplied gratis.

Sold by Chemists everywhere.



ESTABLISHED 1760.

Contains three times the strength of ordinary Breakfast Beverages.

ONCE TRIED ALWAYS USED.

The valuable properties of the Dandelion Root, recognised by eminent Physicians for many centuries, has now become an article of daily use.

Sold by all Chemists throughout the Kingdom in Tins at 1s. 6d., 1s., 9d., and 6d.—*Price Lists on application to the Manufacturers,*

PHILLIPS & SON,
CASTLE SQUARE, SWANSEA,
AND ARTHUR STREET WEST, LONDON BRIDGE,

OR OF
JAS. WOOLLEY, SON & CO., Manchester.
W. MATHER, Export Agent, London.
CLARKE & McMULLAN, Belfast.
GOODALL, BACKHOUSE & CO., Leeds.
McMAISTER & HODGSON, Dublin.
BARCLAY & SONS, Farringdon Street.
EVANS, SONS & CO., Liverpool, &c.
MAW, SON & THOMPSON, Aldersgate Street, London.
BURGOYNE, BURBIDGES & CYRIAX, 16 Coleman Street.
COLONIAL AGENTS.—Melbourne, Adelaide, and Sydney—P. T. FALK; BLYTHE & CO. New Zealand, Nelson, Canterbury, Auckland—A. SCLANDERS & CO.; E. & A. ISAACS. Adelaide—F. H. FAULDING & CO. Cape, Algoa Bay, East London—L. DREYFUS.

SPECIAL TERMS TO MERCHANTS AND SHIPPERS.

ESTABLISHED 1843.

M. A. CRAVEN,

Wholesale & Export Confectioner,

AND MANUFACTURER OF

MEDICATED LOZENGES, REFINED LIQUORICE, JUJUBES, &c.

PAVEMENT, CONEY ST., & COPPERGATE, YORK.

Lozenges of all descriptions made from Customers' private formulæ (or ingredients) and stamped with name if required.

PRICE LIST ON APPLICATION.

PEPSINE SAUCE.

Specialy suited for sale by Chemists, and a preparation which they can confidently recommend as superior both in flavour and virtue to all other sauces.

See Maker—J. LORIMER, Manufacturing Chemist,
JUNCTION ROAD, LONDON, N.

HORSE, CATTLE, AND SHEEP MEDICINES.



By Special Warrant,
Dated 27th December, 1865.

BY ROYAL APPOINTMENT.



By Special Warrant,
Dated 10th February, 1866.

DAY, SON & HEWITT,

INVENTORS AND SOLE PROPRIETORS OF THE

"ORIGINAL" STOCK BREEDERS' MEDICINE CHESTS,

For all Disorders in Horses, Cattle, Calves, Sheep, and Lambs.

Patronised for over 40 years by Royalty, and the principal Stock Breeders, Horse Proprietors, and Agriculturists of the British Empire.

The No. 2 MEDICINE CHEST contains the following matchless remedies:—

- "CHEMICAL EXTRACT," for all External Injuries, and Ewes Lambing.
- "GASEOUS FLUID," for Colic, Scour, or Diarrhoea, and Debility.
- "RED DRENCH," for Cleansing Cows and Ewes, and for Inflammation.
- "RED PASTE BALLS," for Mares after Foaling, and Conditioning Horses.
- "BRONCHOLINE," for Husk or Hoose in Sheep, Lambs, and Calves.
- "GASEODYNE," for Heaving and Paining, "CARMINATIVE CHALK," &c.

Price of Chest, with Guide to Farriery, £2 16s. 6d. No. 1 Complete Medicine Chest, in Polished Case, £6 6s.
Horsekeeper's Chest, No. 4, £2 17s. 6d.

CARRIAGE PAID TO ALL PARTS.

Admirably adapted for all ordinary ailments among Stock, and each preparation can be had separately. Full and easy directions enclosed.
Awarded "Certificate of Merit" by the National Agricultural Society of Victoria, Australia, Spring Exhibition, 1871; President's Medal, Spalding Show, July, 1872; Silver Medal, Manchester and Salford Show, November, 1874; Silver Medal, Preston Agricultural Show, June, 1875; Silver Medal, Northamptonshire Agricultural Society, Stamford Show, September, 1875; Silver Medal, Cheshire Agricultural Society, Crewe Show, September, 1875; Special Prize, National Agricultural Society of Victoria, Australia, November, 1875; Medal, Cheshire Agricultural Society, Chesham Show, 1876; Silver Medal, South African Exhibition, Cape Town, 1877; Silver Medal, Northumberland Agricultural Society, Newcastle-on-Tyne Show, August, 1877; Silver Medal, Knutsford Show, July, 1878; Medal, North Berwick Show, July, 1878; Medal, Dairy Show, London, October, 1878; Silver Medal, Derby, September, 1879; and Silver Medal, Wellingborough, September, 1879.

CAUTION.—Beware of low-priced Imitations, and see that the name of DAY, SON & HEWITT is on all Bottles and Packets.

Prepared only by DAY, SON & HEWITT, 22 DORSET STREET, BAKER STREET, LONDON, W

And sold by Messrs. Burgoyne, Burbidges & Co., Barclay & Sons, W. Edwards, Newbery & Sons, Sanger & Sons, and all Wholesale Druggists, in London; Hood & Co., Melbourne; Kempton, Prosser & Co., Dunedin and Auckland; Fairthorne & Co., Launceston.

SPRATTS PATENT MEAT "FIBRINE" DOG CAKES & POULTRY MEAL DOG MEDICINES AND DOG SOAP.

TO CHEMISTS AND DRUGGISTS.

The above Goods have an enormous Sale. For Terms, address—

"SPRATTS PATENT," Bermondsey, S.E., or order through your Wholesale House.

Wholesale Agents for the Soap and Dog Medicines:—Barclay & Sons; Sanger & Sons; Sutton & Co.; F. Newbery & Sons; Lynch & Co., London; Raimes & Co., Edinburgh, York, and Liverpool; Ravensdale Mill Co., Dublin; Woolley, Sons & Co., Manchester; Taylor, Gibson & Co., Newcastle-on-Tyne; Goodall, Backhouse & Co., Leeds; and of all Wholesale Houses.

TO

enable all our friends thoroughly to test the efficiency of our specialities, we will, on receipt of post card, with name and address, send (carriage paid) a parcel of Free Counter Sample

RESTORINE

The Bowick Patent Botanic Flavourer, for Horses, Dairy Cows, Cattle, and Stock, and for imparting an aromatic flavour to Weathered Hay and Damaged Corn. Costs under one farthing per feed for Horse or Cow.

A
N
D

LACTINA

The Bowick Patent Substitute for Milk for Cows and Young Animals. A one cwt. bag will make 100 gallons of Lactina, at a cost of under three-halfpence per gallon.

THESE ARTICLES HAVE ONLY TO BE INTRODUCED TO SELL, FOR "ONCE USED ALWAYS USE"

SOLE MANUFACTURERS,

T. BOWICK & CO., BEDFORD, ENGLAND.

INDEX TO ADVERTISEMENTS,

See pages 35 and 36.

PAPIER-MOURE,

OR FRENCH CHEMICAL FLY PAPER.

PRICE TO THE TRADE—

per Thousand Sheets	...	...	...	...	...	...	21s. 0d.
Packets containing 5 Sheets (3d.), per dozen	...	...	...	...	...	...	1s. 6d.
Packets containing 10 Sheets (6d.),	..	..	..	..	..	...	3s. 0d.

10 per cent. and 5 per cent. cash Monthly.

INSECTICIDE-VICAT.

PRICE TO THE TRADE—

Bottles	...	...	...	...	...	per dozen,	3s. 9d. and 7s. 6d.
Bellows Boxes...	...	...	...	...	..	3s. 9d.	
Tin Bellows	...	...	...	...	..	7s. 6d.	

10 per cent. and 5 per cent. cash Monthly.

SOLE WHOLESALE AGENTS:

J. MAW, SON & THOMPSON,
7 to 12 ALDERSGATE STREET, LONDON.

DRUGS, CHEMICALS, PHARMACEUTICAL PREPARATIONS.

GABRIEL & TROKE,

Wholesale and Export Druggists and Manufacturing Chemists,
82 CITY ROAD, LONDON.

**GABRIEL & TROKE'S
REGISTERED CAPSULED HORSE BALLS,**



Manufactured solely by GABRIEL & TROKE,
WHOLESALE DRUGGISTS, 82 CITY ROAD,
LONDON.

MANUFACTURERS OF ALL VETERINARY PREPARATIONS, EVERY KIND OF
VETERINARY INSTRUMENTS AND SUNDRIES.

The superior advantages of these Balls are obvious. The mass is confined in an hermetically sealed gelatinous Capsule, perfectly harmless, and immediately dissolved in the stomach. The Capsule will not only prevent the Ball from getting dry and hard, but will preserve its purity and power for any length of time, and ensure the effectiveness of the medicine—especially when such drugs as Camphor, Ammonia, or Essential Oils are prescribed. These Balls are most convenient and safe and well adapted for export, keeping good in any climate. They are put up in Boxes of 1 dozen each. The Balls are of the most approved formulae on hand, and private recipes faithfully and accurately dispensed. Shipping orders promptly and carefully executed, and at lowest market prices. Price Lists of a very extensive character in the most handy referable style on application.

SAMPLES AND SPECIAL QUOTATIONS FOR LARGE BUYERS.

ESTABLISHED 1833. HORSES.—LIEUT. JAMES'S BLISTER.



CAUTION.

The annexed Label is at the top of every Pot of the ORIGINAL and GENUINE BLISTER.

The Messrs. Barclay & Sons, 95 Farringdon Street, London, and Messrs. Raimes & Co., Edinburgh, Liverpool, and York, are now and have been Agents 45 years.

AGENTS:—Sutton & Co., 10 Bow Churchyard; W. Edwards & Son, 157 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans, Lescher & Evans, Bartholomew Close; Burgoyne, Burdidges & Co., 16 Coleman Street; Lynch & Co., 171A Aldersgate Street; W. Mather, Farringdon Road, London, and Manchester; Tidman & Son, Wilson Street; Sanger & Son, 150 Oxford Street; Millard & Sons, 40 Charterhouse Square; Corry & Soper, Shad Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries' Company, Virginia Street, Glasgow; Boileau & Co., Bride Street, Dublin; McMaster & Co., 121 & 122 Capel Street, Dublin; Hunt & Co., 17 Westland Row, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith, Londonderry. And by all Chemists, in Pots, 1/6, 2/9, and 5/1.

COLONIAL AGENTS:—MELBOURNE and WELLINGTON: Felton, Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; DUNEDIN and AUCKLAND: Kempthorne, Prosser & Co.; CALCUTTA: Smith, Stanistreet & Co.

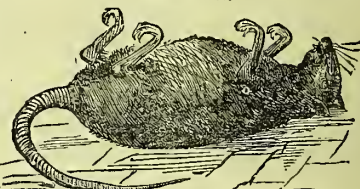
R. S. JAMES, 31 Years Sole Manufacturer, STANFORD, FARRINGTON, BERKS. Advertis'd in "Bell's Life" 45 years. Beware of a Spurious Imitation.

100 Rats destroyed for a Shilling by BARBER'S PHOSPHOR PASTE

WRAPPED NEATLY FOR THE COUNTER.

Handsome attractive Posters supplied; if conspicuously placed will command constant sale.

Kills Rats, Beetles,
&c.
THE DEAD VERMIN
DRY UP
WITHOUT SMELL.



Guaranteed the best
destroying Paste in

3d., 6d., 1s., 2s. 6d., and 5s. Tins. Also

BARBER'S VERMIN KILLER

SOLD THROUGHOUT THE WORLD.

Kills Mice upon the spot. In packets, 3d., 6d., and 1s.

Be not deceived with worthless imitations. Observe the Name.

Testimonial from Her Majesty's Ratcatcher.

"Hampton, Middlesex, May 25th, 1870.—I have been more than 40 years employed at Hampton Court Palace, the Royal Stables, and other buildings in and around the Royal Parks, for the destruction of rats, mice, and other vermin, and after trying all the rat poisons which I have heard of, I now use BARBER'S PHOSPHOR PASTE and VERMIN KILLER, with which alone I am able to keep these ancient palaces and national works free from vermin. (Signed) CHARLES SHONES"

WORKS, SALISBURY: ESTABLISHED 1848.

Special Quotations to Shippers. Supplied by all the London Wholesale Houses.

HORSES.—LIEUT. JAMES'S BLISTER

(Manufactured by R. J. JAMES, the Grandson of the Inventor).

This celebrated Blister is now offered to the Trade at the following reduced prices.

1 oz. pots from	14/- per doz. to	12/6 per doz.	1 1/2 lb. pots from	£4 4 0 per doz. to	£4 7 10
2 " "	£1 5 6 " "	£1 3 0 " "	1 " "	7 16 0 " "	7 10 0 " "
4 " "	2 8 0 " "	2 4 0 " "			

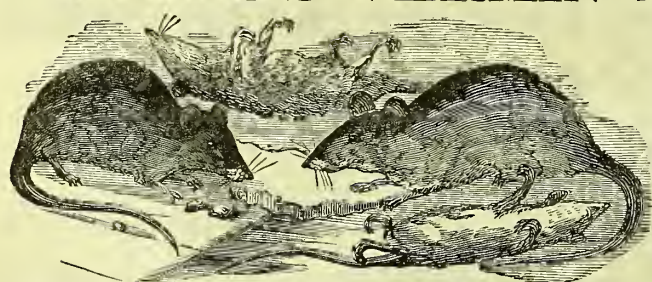


Observe the Trade Mark.—"A Horse's Head on the top of each Pot, and the signature, R. J. James."

Wholesale Agents, 1 ULSTER & CRISP, 4 Cheapside; NEWBURY, 37 Newgate Street; MAW, SON & THOMPSON, 11 Aldersgate Street; HAYES & CO., 16 Ely Place, London, E.C. Agents for the Colonies required. Apply, with reference, to JAMES & JAMES.

JAMES v. JAMES.—LORD ROMILLY, the Master of the Rolls, on February 23, 1877, declared "that I had an equal right with other members of the Inventor's family possessing the receipt to make and sell this Blister."—R. J. JAMES.

BATTLE'S VERMIN KILLER.



{ Mice eat it readily,
Die on the spot.

Has an immense Sale, and wherever introduced never fails to give satisfaction.—Mice appear attracted to it as by magic, eat it readily, tumble and die on the spot. Rats usually die in their runs.—Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published.

From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine chased a Packet of your VERMIN KILLER last night, doubting its efficacy to-day he called in to say that he had found fifteen dead mice, and used part of a packet.—From Mr. EDWARD STURDY, Flemington.—I duly received by post the Packet of your VERMIN KILLER, and as represented in your advertisement. It speedily destroyed all the my granary. I enclose 2s. for two more Packets.—Leeds, November 1877.—I have tried BATTLE'S VERMIN KILLER, and have found it effectual in clearing my premises of LARGE QUANTITIES OF RATS. THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each.

SOLE PROPRIETOR:

Mr. J. R. BATTLE, Chemist, Lincoln, England.

No Chemist or Storekeeper should be without a supply.

100 PER CENT. PROFIT.

SIDDALL'S CELEBRATED BEETLE POWDER!

3d. size, 18s. per gross.

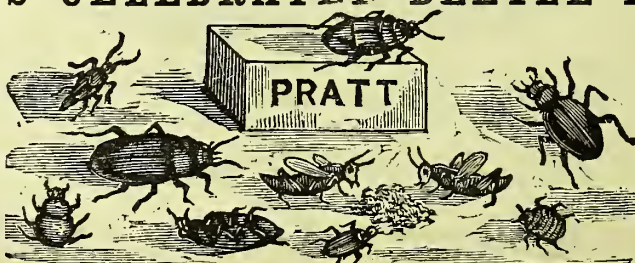
Carriage Paid.

Death to Beetles!!

Death to Cockroaches!!

Death to Crickets!!

3d., 6d., and 1s. packets.



1,000 Handbills

each parcel.

Death to Black Cloc

Death to Bugs

Death to Fleas

3d., 6d., and 1s. packets.

Has been established for more than Thirty Years, and is an excellent and most satisfactory Insecticide for the destruction of household insects such as Black Clocks, Beetles, Crickets, Fleas, &c.

Sole Proprietor—HENRY J. PRATT (late SIDDALL), Pharmaceutical Chemist, YORK.

INTERNATIONAL EXHIBITION, 1870.

283, CLASS 3.

Every Man his own Printer.

PRINTING PRESSES (all Iron) 25s.

complete, to £10 10s.

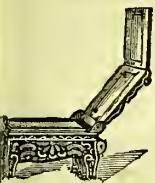
Specimens of Work, One Stamp.

Inventor

JABEZ FRANCIS, Rochford, Essex.

Type and Materials for Amateurs.

Amateur's Guide, 64 pp., 13 stamps.

**ORGAN'S PATENT CRUCIBLES**

HAVE RECEIVED AT EACH EXHIBITION the HIGHEST AWARD made for CRUCIBLES. The quality is uniform, withstanding the greatest heat without danger, and they never crack. Porous Battery Cells, &c., are manufactured by

THE PATENT PLUMBAGO CRUCIBLE COMPANY,

BATTERSEA WORKS LONDON S.W.

ESTABLISHED 1836.

SEIDLITZ POWDERS.

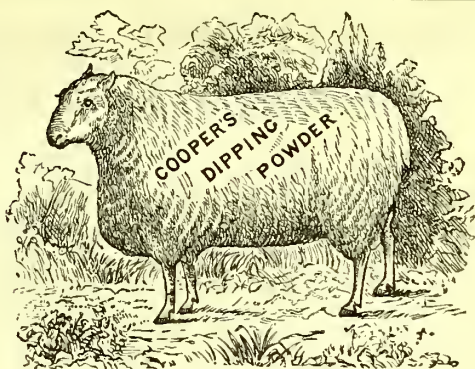
WHOLESALE AND FOR EXPORTATION.

QUALITY AND STRENGTH GUARANTEED.

Put up in best style in Plaid Boxes, 6s. per doz. Fancy Gold
Labels, &c., 7s. 6d. per doz. Gold, Enamelled, and Embossed, best hinged ditto,
Labels, &c., 7s. 6d. per doz. Ginger Beer and Lemonade
Powders, 5s. per doz. Soda Powders, 3s. Sherbet, 7-lb. Bags,
per lb. Chlorodyne, 6s. per lb.; W. Qts., 5s. 6d.

THOMAS KNOWLES,
CHEMIST

SEYMOUR STREET, EUSTON SQUARE, LONDON, N.W.

**COOPER'S SHEEP DIPPING POWDER**

Is soluble in Cold Water, and should be used in preference to any other Dip.

FOR TICKS, FLY, SCAB, AND FOR ALL OTHER SHEEP DIPPING PURPOSES.

This Dip has been in use upwards of 35 years, and has never been equalled by any other; it is of uniform strength, does not stain the wool, and is equally good as a Summer or Winter Dip. It is especially recommended for Dipping Lambs, and as a certain Cure for Scab.

In Packets to Retail at 1s. 4d. each, for 20 Sheep.

Counter Bills and Directions in English, Spanish, Dutch, &c., may be had free on application.

Terms and all particulars may be had of the Proprietor,
WILLIAM COOPER, M.R.C.V.S., Chemical Works,
Berkhamstead, Herts.

THE

Cheapest Condry's Fluid of All.

CONDY'S FLUID RED,	1s. size, 4s. per doz.
" " "	2s. " 8s. "
" " "	4s. " 16s. "
CONDY'S OZONISED WATER,	2s. " 8s. "
" " "	3s. 6d. " 12s. "

—Chemists wishing to be supplied at the above prices must order R. CONDY & CO.'S articles, which are only TWO-THIRDS the price of the cheapest of their competitors'.

R. CONDY & CO.'S articles are made in strict accordance with the Patent, are of uniform strength, and quite free from sediment.

Wholesale Agents—W. EDWARDS & SON; R. HOVENDEN & SONS; MAW, SON & THOMPSON; NEWBERRY & SONS; and all other leading Wholesale Houses.



Address for Orders, &c.,

R. CONDY & CO., STATIONERS'-HALL COURT, LONDON, E.C.

UNAUTHORISED USERS OF OUR PRIZE MEDALS WILL BE DEALT WITH ACCORDING TO LAW.

GENUINE EMERY, EMERY CLOTH, AND BLACK LEAD.**JOHN OAKEY & SONS,**

MANUFACTURERS OF

Glass Paper, Emery and Glass Cloth; Emery, Black Lead, Pumice, Putty Powder, Crocus, Urn Powder, Tripoli, Rouge, Plate Powder, Steel Polish, Furniture Polish, Knife Boards, Brunswick and Berlin Black, &c.

OAKEY'S WELLINGTON KNIFE POLISH,

Prepared expressly for Oakey's Patent India-Rubber Knife Boards, Buff Leather Boards, and all the Patent Knife Cleaning Machines. Sold in Pack 3d. each; and Tins, with perforated Tops to prevent waste, 6d., 1s., 2s. 6d., and 4s. each.

OAKEY'S NON-MERCURIAL SILVERSMITH'S SOAP,
For Cleaning and Polishing Silver, Plate Glass, Marble, &c. Tablets, 6d. each.

OAKEY'S POLISHING PASTE,

For Cleaning Brass, Copper, Tin, Pewter, &c., &c. Pots, 6d. and 1s.

WELLINGTON BLOCK BLACK LEAD,

In 1d., 2d., and 4d. Blocks, and 1s. Boxes.

WELLINGTON EMERY & BLACK LEAD MILLS, Westminster Bridge Road, London, S.

Highest Award and Prize Medal, Philadelphia Exhibition, 1876.

BENZOLINE,

THE PUREST & SWEETEST FOR BURNING & CLEANING.

LEON CLERC & CHARLES.

THE ORIGINAL DISTILLERS,

Warehouse & Offices—48 COMMERCIAL STREET, } LONDON.
Works—DAVEY ROAD, HACKNEY WICK,



PETROLEUM OIL, choice brands only sent out.

BURNING NAPHTHA at Market Prices.

GALVANIZED and TIN GOODS of all descriptions.

PARAFFIN, SPIRIT, and MODERATOR LAMPS.

GLOBES and CHIMNEYS for gas or lamps.

WOODEN TAPS, with square or round cork.

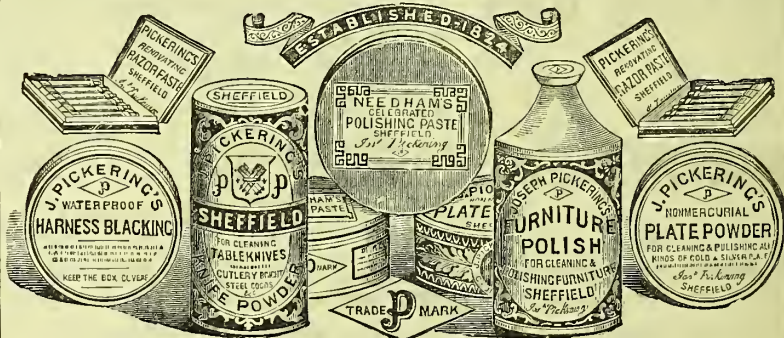
Book of Drawings and Prices sent free on application. Apply at 48 Commercial Street.

Needham's
Polishing Paste,
For Cleaning Brass
Copper, and Britten
Metal Goods, &c.

Pickerings' Razor
Paste,
For sharpening Razors, &c.

Waterproof
Harness Blacking,
For Black Leather
Harness.

DIPLOMA OF MERIT, VIENNA EXHIBITION, 1873.
Joseph Pickering & Sons (J. Needham), Albion Works, Sheffield,
MANUFACTURERS OF



Sheffield Knife
Powder
For Table Knife
Irons, &c.

Plate Powder
For Electro-plate
Articles, &c.

Furniture Polish
For cleaning Furniture
Polished Furniture, &c.

Brunswick
Black
For all kinds of
Iron Work.

SOLD BY ALL CHEMISTS, GROCERS, IRONMONGERS, ETC.

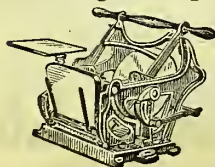
Sydney Exhibition.—GOLD MEDAL Awarded to
THE SIMPLISSIMUS SELF-INKING PRINTING PRESS.

CHEAPEST, SIMPLEST, AND BEST.

CHEMISTS, PRINT YOUR OWN LABELS AND HANDBILLS. Send for our NEW ILLUSTRATED CATALOGUE, 108 Illustrations, Presses, Paper Cutters, Type and material used by Printers, with a vast quantity of information never before published, post free. Eclectic Handbook of Printing, 1s. 1d. (Second Edition now in Press). Specimen Book of Type and Composition, 1s. 1d. (400), 7d. PRESSES FROM £2.

BIRMINGHAM MACHINISTS CO., Great Queen Street Works (Side of New Street) Birmingham.

"Let those now Print who never did before, and those who always Printed Print the more."



IMPORTANT NOTICE TO CHEMISTS.

owing to the unscrupulous methods and false assertions employed by an irresponsible vendor of India Rubber Porous Plasters, we feel constrained to state that our

INDIA RUBBER POROUS STRENGTHENING PLASTERS

are guaranteed not to contain a single atom of Lead or any other ingredient calculated to injure the consumer; on the contrary, **THEIR COMPOSITION IS PURE VEGETABLE**; in quality and general appearance they are unsurpassed by any maker, and can be obtained by the gross at £1 16s., less 10 per cent.

THE "LANCET."

"Messrs. SEABURY & JOHNSON have produced a list of Plasters, all made with India Rubber as a basis, which are elegant, stick well, are easily adapting themselves to the folds of the skin, occasion no inconvenience to the patient, and have the appearance of being made with faithfulness to the British Pharmacopoeia. One Plaster worthy of especial praise is the Salicylated Isinglass: it is flexible, and on being slightly wetted is a good adhesive plaster for surgical purposes."

THE "MEDICAL PRESS AND CIRCULAR."

"Among more recent and valuable Pharmaceutical improvements we would draw the attention of the reader to an elegant and convenient lot of Plasters prepared by SEABURY & JOHNSON. We have recently tried some of them, and find them to be, severally, very neat, clean, and efficacious preparations. India Rubber has been used as a base in the preparation of the Plasters, by which means the medicinal substances used are protected. In regard to their therapeutical efficacy, and the style in which they are got up, we can speak from experience. Among the other Plasters which have given us great satisfaction, we may mention those in which *Belladonna* and the *Spanish Fly* are, respectively, the chief ingredients."

"LONDON MEDICAL RECORD."

"Messrs. SEABURY & JOHNSON, of 28 Red Lion Square, London, have forwarded to us a series of Plasters made in a style which deserves warm praise. All of them are of the best make that we have yet seen, and, taken as a series, constitute a considerable improvement in the manufacture of Plasters, of which surgeons and physicians will, on inspection, easily realise the value. Their Salicylated Isinglass Plaster, spread on strong proof cotton cloth, and applied by wetting, is the best surgical adhesive plaster which we have seen. The plaster itself is made of pure gelatine, and is aseptic in character; it adheres firmly and closely on being wetted with a sponge; it does not spoil in any climate. It is obviously from its manufacture calculated to last much longer than the ordinary adhesive plaster. The Mustard Plaster, the Capsicum Plaster, India Rubber Blister Plaster, and Pitch Plasters are all equally deserving of commendation."

The "British Medical Journal," "Medical Times and Gazette," "Chemist and Druggist," and many of the Provincial Medical Journals have noticed our productions as worthy of special commendation. Our improved Pharmacopoeia and Surgical Plasters in India Rubber have overcome all objections found in the use of plasters, and present the following advantages and qualities, which will be appreciated by every Physician, Surgeon, and Chemist:—

Perfect Cleanliness and Reasonable Price.

Perfect Pliability in any temperature.

Adhesion without Heat or Moisture.

Combined India Rubber Prevents Decomposition.

Being Porous they do not slide or move, thereby ensuring increased local action.

They remain serviceable longer than other plasters.

India Rubber Preserves the incorporated Extract or Drug.

Our Mustard Plasters are spread on Cotton Cloth instead of Paper.

Our Isinglass, Court, Corn, and Bunion Plasters are all spread with Chemically-pure Fish Gelatine incorporated with Lactic Acid. Fish Isinglass treated by our method of purification ensures an article that adheres quickly by the application of the slightest moisture; and to its more susceptible and greater adhesive properties it is rendered antiseptic.

Every Pharmacopoeia Plaster guaranteed to be of Official Strength. We also manufacture in addition to our list of India Rubber Plasters, in the approved form and improved quality, Mustard, Silk, Isinglass, Medicinal, Corn, Bunion, and Court Plasters in great variety.

Our India Rubber Porous Strengthening Plasters possess any superiority over similar articles it is owing to an increased local action. All Porous Plasters are packed two dozen in a box, and are fully warranted to give perfect satisfaction. We quote a few of the more prominent kinds, subject to 10 per cent. discount monthly.

	Size, 7½ x 5.	Per doz.	Per gross.		
India Rubber Porous Strengthening Plasters	.....	4 0	£1 16 0	Surgeons' Rubber Adhesive Plaster, 7 in. x 1 yd. ..	Per doz. Rolls £0 17 0
" Arnica	.....	4 0	2 4 0	Mustard Plasters (10 in a box), on Cotton Cloth	Per doz. 0 10 0
" Aconite	.....	5 0	2 17 0	" (6 in a package) ..	" 0 6 0
" Belladonna (B.P.)	.....	4 6	2 11 0	" (3 in a package) ..	" 0 3 0
" Capsicum	.....	5 0	2 17 0	" yard Rolls, 6 x 36 ..	" 0 10 0
" Opium (B.P.)	.....	7 0	3 16 0	" 1-yard Rolls, 6 x 18 ..	" 0 6 0
" Poor Man's	.....	4 0	2 4 0	Salicylated Isinglass Plaster, 5-yard Rolls	Per Roll 0 5 0
" Burgundy Pitch (B.P.) Plasters	.....	4 0	2 4 0	" 1 ..	0 1 3
" Warming (B.P.)	.....	5 0	2 17 0	India Rubber Porous Strengthening Plasters, in 5 yard Rolls, 5 in. wide	Per Roll 0 6 3
Belladonna Plaster (B.P.), 7 in. x 1 yd. ..	Per doz.	1 7 6	1 7 6	Ditto ditto in yard Rolls, ditto ditto ..	Per doz. 0 17 0
India Rubber Blister Plaster (B.P.), 7 in. x 1 yd. ..	Per doz. Rolls	1 7 6	1 7 6	India Rubber Porous Belladonna Plasters, in 5 yard Rolls 5 in. wide ..	Per Roll 0 8 6
India Rubber Capsicum Plaster	"	"	"		

BENSON'S CAPCINE POROUS PLASTER,

The most active external remedy known, is a great improvement on the slow action of the ordinary Porous Strengthening Plaster, and was specially recommended by American Medical Jurors, as an article of genuine merit. Per dozen, 8s. 6d. 10 per cent. discount. Our Plasters can be obtained from all Wholesale Druggists, Patent Medicine Dealers, and Druggists' Sundriesmen. Complete Price Currents of our Plasters sent to any address on application. Inquiries and correspondence promptly answered.

SEABURY & JOHNSON, 1 and 2 Australian Avenue, E.C.

ENO'S "FRUIT" SALT,

"FRUIT SALINE," OR "FRUIT POWDER."

ENO v. STEPHENS IN THE COURT OF CHANCERY.

Shorthand Writer's Notes of Vice-Chancellor Bacon's Summing-up and Judgment.

Sir HENRY JACKSON, Q.C., on proceeding to sum up in detail on the evidence and arguments in the case, was stopped by the VICE-CHANCELLOR in the following words:—

Sir Henry Jackson, I do not think I ought to trouble you. The case has been discussed at very great length. I confess somewhat to my astonishment when Mr. Hemming declined to adopt the evidence as it was before the Court of Appeal, and put the Plaintiff to prove by the same evidence the same facts which had been proved before, I was under the impression that he meant to call witnesses on his own behalf. If that had been, as it probably may have been his intention at that time, there would have been a reason perhaps for repeating over again at very great length and considerable expense, of course to somebody, the evidence upon which the Court of Appeal had acted—I say nothing about what was done in this Court, but the Court of Appeal had acted upon that evidence. The case, however, concludes, and no evidence whatever is adduced by the Defendant—not even his own statement in his Defence is verified by his own affidavit. What is to be done with a case like that? The whole principle of the case was decided upon the first occasion. The Court of Appeal thought it right to adopt that restriction which I had thought it right to adopt, not to extend the Injunction further than the then present exigency of the occasion required. Not one word of the judgment of the Court of Appeal shows that there should be any restriction, or that there should be any restriction when the case came on for hearing. Now it comes on for hearing upon precisely the same evidence, and the evidence, among other things, is, that in the circular which accompanies this bottle of Salt, the words to which the Plaintiff particularly objects are repeated by the Defendant, and repeated by means of copying the Plaintiff's circular. Mr. Giffard says nobody buying the bottle would think of looking at the circular, for it is enclosed in the wrapper, and not even visible to the eye. But the case is one in which the Plaintiff complains of the general similarity and the general appearance of the names which are used by the Defendant, and if a purchaser entertained any doubt, if he was puzzled for a moment between "Vinous" or "Vinous," and Eno's—the sounds being, in one mode of pronunciation, very much alike—if he opened the wrapper and read the circular he would say, My doubts are removed; this is what I want—I want Fruit Saline, and here it is—the circular says it is "Fruit Saline."

The Defendant in his statement at the end of the fourth paragraph says he has not "at any time since the month of August, 1877, used the words Fruit Saline, or Fruit Powder, in any label or advertisement or otherwise in connection with the sale of the said preparation." Under the old system if a defendant had put in his answer, as he must, upon oath, he might perhaps have read that passage and said "the Plaintiff's allegation in that respect is denied." The Defence is not put in on oath and the Defendant declines to pledge his oath to that fact. But it does not rest there; for the evidence is clear and conclusive that after the month of August, 1877, when the Plaintiff, not without some degree of forbearance, as it seems to me, was content to take the Defendant's word that he would not repeat that offence which the Plaintiff complained was doing him that injury which he thought he was suffering, he did, in spite of his promise, repeat that which the Plaintiff called an offence and believed to be an injury to him. The case comes to a hearing, the Defendant insists upon the Plaintiff proving his case. At the Defendant's instance the Plaintiff has proved his case, and, among other things, has proved the utter falsehood of that Defence which is set up in the paragraph which I have read. The matter, therefore, is wholly without doubt, without defence, without excuse of any kind that I can perceive, because, when I am told that I must consider what the intention of the parties was, and when I am told, moreover, that there is no evidence that anybody has been deceived, and the Defendant in his defence says nobody has been deceived, his intention to deceive is not contradicted. That is what the Plaintiff imputes to him; and that is what, I think, the Plaintiff establishes not only from the simplicity of the sign, but from the fact that, when the complaint was first made in August, 1877, they were words which the Defendant admitted he had no right to use. For what reason? Because they were calculated to deceive—calculated to represent the Defendant's goods as those which the Plaintiff was selling under the title which he had adopted.

Upon the general case, therefore, in my opinion, the matter is beyond all doubt. It is proved that the use of the word "Fruit" with other substantives, "Saline" and "Salt," and so on, has been made by the Defendant since the time when he promised not to make it, when he admitted it was unlawful, and which I have no doubt whatever was wholly unlawful. It is said that he endeavoured to keep his promise by pasting something over the word "Fruit." Well, if that meant anything it is a plain admission of the justice of the Plaintiff's claim in that respect. But how can I consider that that is keeping his promise? Whether that pasting over was to be effectual or not would depend upon the consistency of the paste or glue, or perhaps the humidity of the atmosphere or any other accident. That there

was no intention to perform his promise, I am satisfied of, and that there has been no performance of his promise I think is clear.

Upon the general case, therefore, I think the Plaintiff is entitled not only to the Injunction in the terms of the Interlocutory Order, but upon those more extensive terms which the Plaintiff asks, by his claim, should be applied to the Defendant's infringement of his rights.

Then there is another subject which is so intimately connected with that that I desired to hear them both together, and I am very glad I did, because, as Mr. Giffard has just told me, that is the main question in dispute between the parties. For the Injunction the Defendant does not seem to care much, though he has violated it, in my opinion, plainly; but he says the question is whether there is a title to register this Trade Mark for which the Defendant proposes to apply. Now that depends upon the words of the Act of Parliament which have been used, the more important of which are "so resembling as to be calculated to deceive." That is a question not to be decided by eyesight; I am invited to lay these two devices side by side, and, since they are not identical and since there are great differences in their external appearance, to decide that they are not calculated to deceive. To that word DECEIVE I have no right to criticise or quarrel with; it is used in the Act of Parliament, and if I were to give one sense to it, it is plainly in my judgment calculated by the Defendant, meant and intended by him, to deceive any person who is not vigilant enough either in eye or in ear to detect at once the difference between Vinous and Eno's, and the difference between Fruit Salt and any other salt, Eno's title being plainly upon his Trade Mark, Eno's Fruit Salt.

It is not, as I have said, by sight; it is not by the use of a microscope; it is by any other means of detecting more or less of resemblance that you can decide a question which the statute contemplates by using the words that I have referred to. But it is whether the Registrar, whose office it is to register, is satisfied before he performs his function by registering the mark, that the applicant's mark does so resemble as to be calculated to deceive. Can any living man doubt that it is not only calculated—that is intended—but that it is also calculated—that is to say, meant and contrived for the purpose of deceiving—else why does he do it? The world is wide, as has been said in the Judgment referred to, and all things in the animate and inanimate world are open to the Defendant to make a device which shall distinguish his goods from those of any other person. But the Plaintiff having appropriated to himself, and enjoyed for years a device in which the principal characteristic consists of a bunch of grapes, with a Latin motto, and the specific description which relates to Eno's Fruit Salt, the Defendant proposes to register a design in which the principal device is the stem of a vine with a bunch of grapes and some leaves, and a Latin motto around it, and it is to be called "Vinous Salt." If there was nothing in the case but the contrast of these two things, it might, perhaps, to some persons, who trusted only to their eyes, be said there was no resemblance between them, or no sufficient resemblance; but the Registrar is bound to take the whole case into his consideration; he is not to be baffled by any mere similarity or dissimilarity. That is not the way that the Court of Appeal, in the latest case that was before it—the Sheffield case—dealt with the question. The Defendant there had as good a right as anybody in the world could have to stamp his own crest or coat of arms, or anything else, upon his commodities. Nobody could dispute it, and nobody, putting the two things together, could say they were so much alike as to deceive. Mr. Hemming insisted that the stamping, being made on a hard metal, was likely to be blurred, and the persons to be deceived. I have a very clear recollection of that case, and I say it would be impossible for a man with eyes, or with one eye, in his head to mistake the device in that case for the device which the Plaintiff desired there to use.

Mr. HEMMING.—Your Lordship will pardon me, I was only quoting the Master of the Rolls.

The VICE-CHANCELLOR.—I know, and have also clearly in my mind what the Master of the Rolls said and what he did not only in the "Dog and Porridge Pot" case, but in that case. The Master of the Rolls' judgment takes a wide and comprehensive view of the subject. He refers to the statute only for the purpose of verifying and corroborating that view, but what he said was "an honest man who wants to mark his goods never thinks of taking the device partly or wholly which some other tradesman is employing for the purpose of marking his goods," and that I take to be the true principle of the case.

And, taking all these things together, the Plaintiff's evidence in the first place, the total absence of evidence or statement on the part of the Defendant, excepting the ingenious and elaborate statements which Counsel have addressed to me, there being no statement whatever by him at any time except that he admitted he had done wrong in using the word "Fruit," I am asked to say that there is no such resemblance between these two devices as, between those two men, are calculated to mislead in reference to the commodities tendered in the shape in which they are sent into the world. I think I should be wasting time if I observed further upon it. It is to me clearly manifest not only that there is sufficient resemblance to answer the strictest words of the statute, but that there is a resemblance which has been carefully and intentionally calculated to deceive. And as the Defendant will not pledge his oath to a contrary intention I cannot come to a contrary conclusion than that the Injunction ought to go in the terms in which the bill prays for it, extending it therefore beyond the Injunctions granted on the Interlocutory Order and upon the motion, to say that the Defendant is not entitled to register the device of a bunch of a vine with a bunch of grapes upon it, and a Latin motto on it and the name "Vinous Salt." There is an end of it therefore.

Sir HENRY JACKSON.—Well, my Lord, of course I must have the costs.

The VICE-CHANCELLOR.—You must have the costs of both.

Other attempted infringements of J. C. ENO'S rights have been stopped by legal intervention, and J. C. ENO publishes the above Judgment in extenso in the hope of deterring all further attempts at similar piracy. He is determined, however, to take legal proceedings without further notice against any one who may hereafter seek to infringe his rights.